INSTRUMENTS
FOR
CARDIO-VASCULAR
AND
THORACIC SURGERY

GU
LONDON
ENGLAND

CATALOGUE
PART 4

MADE BY

THE GENITO URINARY MFG. CO., LTD

28a, 33 & 34 DEVONSHIRE STREET

LONDON W.1

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TELEGRAMS: CYSTOSCOPE, WESDO, LONDON . TELEPHONES: WELBECK 2835 (3 Lines)

THE advances in Thoracic and Cardio-Vascular Surgery during recent years have resulted in a marked improvement of the armamentarium for this branch of surgery. We have been entrusted with the designing and manufacture of a considerable number of the instruments illustrated in this catalogue, and can consequently guarantee that they conform to the author's specifications.

Our thanks are due to the many distinguished surgeons whose advice has enabled us to produce these instruments, of a quality not easily surpassed.

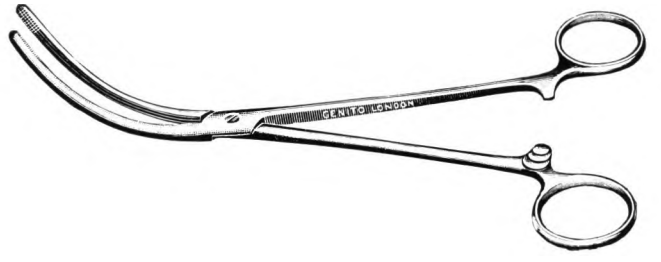
THE GENITO URINARY MFG. CO. LTD.

London, 1961

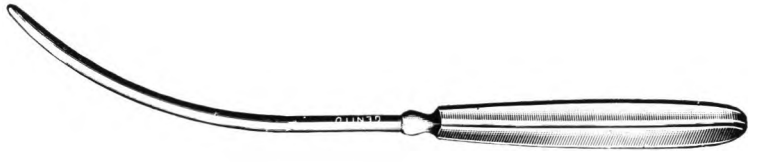
GU1744 Pulmonary Artery Clamp, Blalock's, right angle, small, stainless steel. Blades covered with non-slip cotton sleeving.
GU1745 Ditto, medium.
GU1746 Ditto, large.
GU1747 Sleeving for above, 1 yard length.

GU1748 Right angle Hook, Blalock's, stainless steel, with sand-blasted handle.
GU1749 Foroblique Hook, Blalock's, stainless steel, with sand-blasted handle.

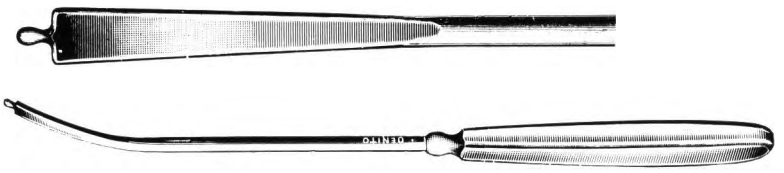
GU1750 Bulldog Clamp, Blalock's, small, stainless steel. Blades covered with non-slip cotton sleeving.
GU1751 Ditto, medium. *Sleeving for above see* **GU1747**
GU1752 Ditto, large.
GU1753 Ditto, extra large.



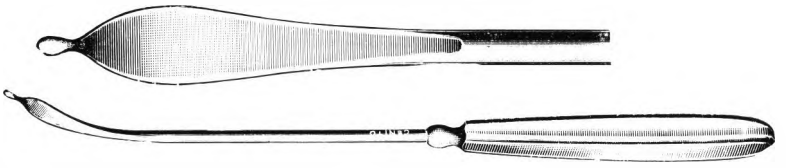
GU1754 Traction Forceps, Bahnson's, stainless steel.



GU1755 5 m.m. Cardiac Sound for pulmonary stenosis, Brock's, rhodium plated with sand-blasted handle.

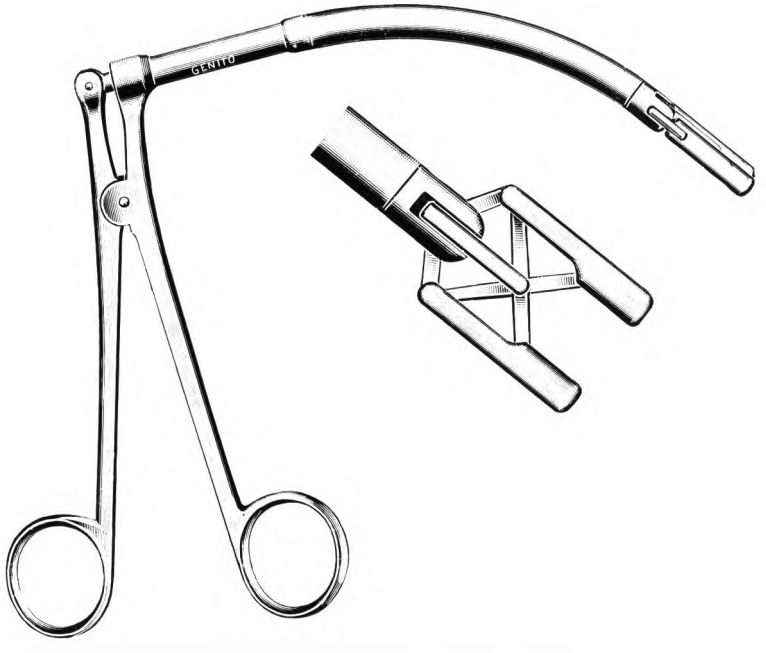


GU1756 Olivary Exploratory Probe, for pulmonary stenosis, Brock's, stainless steel, with sand-blasted handle.



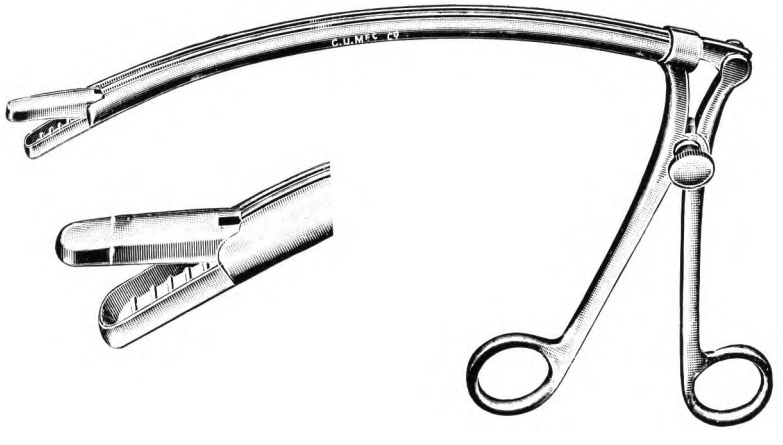
GU1757 Valvulotome, set of three, sizes 7.5 m.m., 10 m.m., 12 m.m., Brock's, for pulmonary stenosis, stainless steel, with sand-blasted handle.

GU1758 Cardiac Sound, Brock's, set of three sizes 7.5 m.m., 10 m.m., 12 m.m. for pulmonary stenosis, rhodium plated with sand-blasted handle.

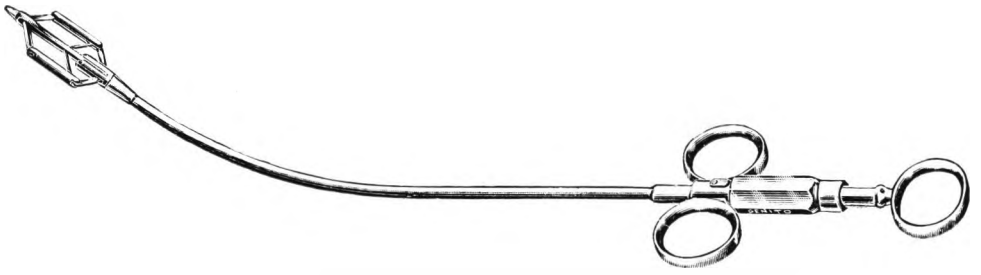


GU1759 Dilator, Brock's, for pulmonary stenosis, stainless steel.

GU1760 Cardiac Punch, Brock's, for infundibular stenosis, 7.5 m.m. dia.
GU1761 Ditto, 10 m.m. dia.
GU1762 Ditto, 12 m.m. dia.

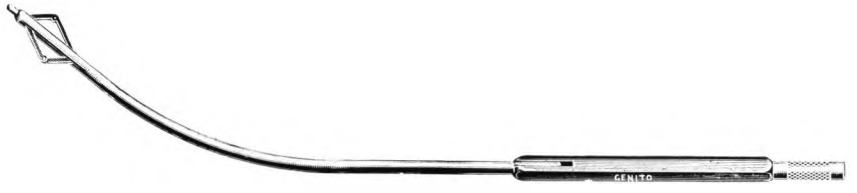


GU1763 Spur Punch, Brock's, stainless steel.



GU1764 Combined Dilator and Valvulotome, Chesterman's (the front links of dilator are sharp to act as valvulotome).

GU1765 Pulmonary or Aortic Dilator, Sellors.

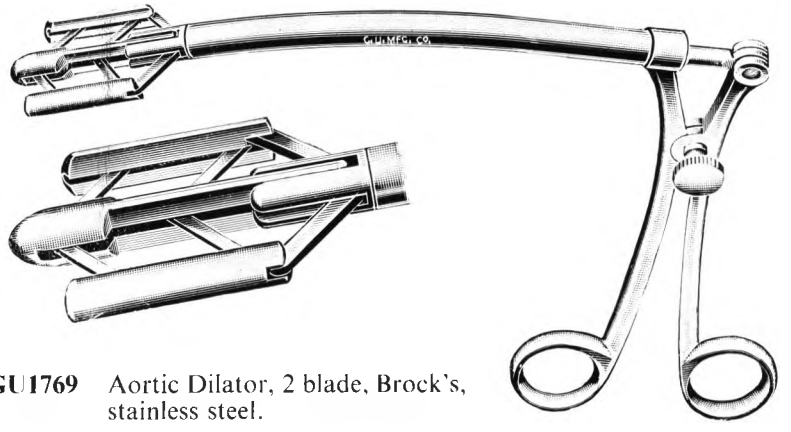


GU1766 Pulmonary or Aortic Valvulotome, Sellors.

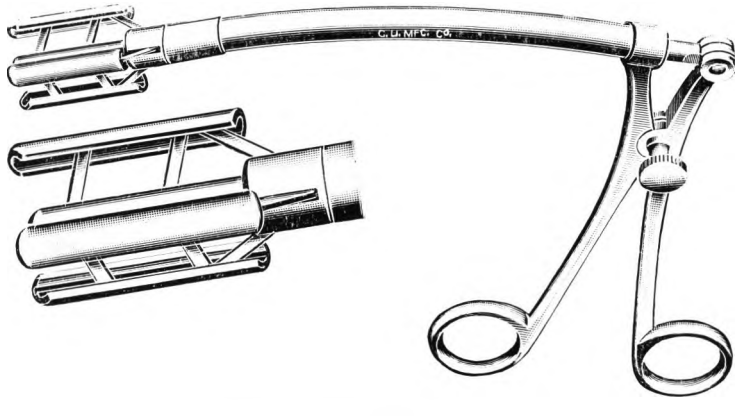
GU1767 Valvulotome, adjustable, Potts-Riker.

GU1768 Dilator, adjustable, Potts-Riker.

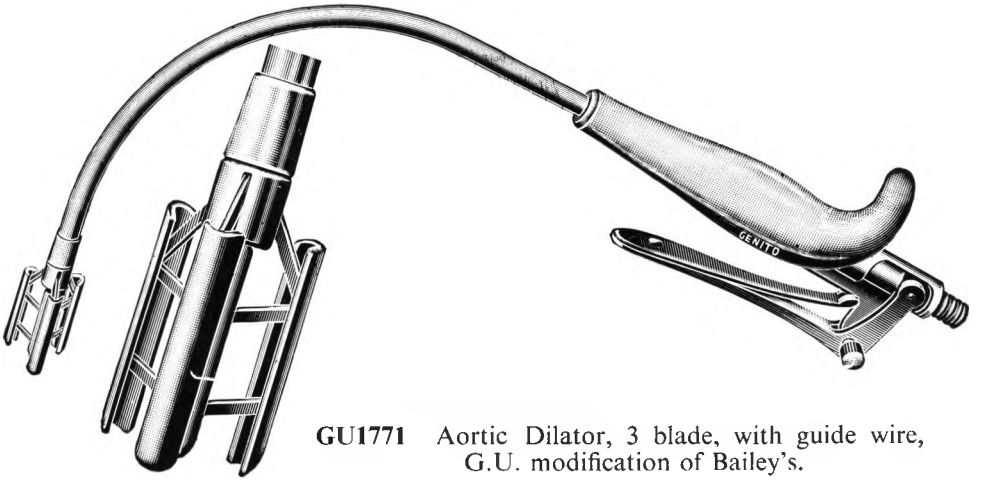
GU1768a Retractor for exposing aortic valves, Hammersmith Hospital Pattern. (*This instrument is similar in design to the above Potts-Riker Dilator, but opens to* 30 *m.m. diameter*).



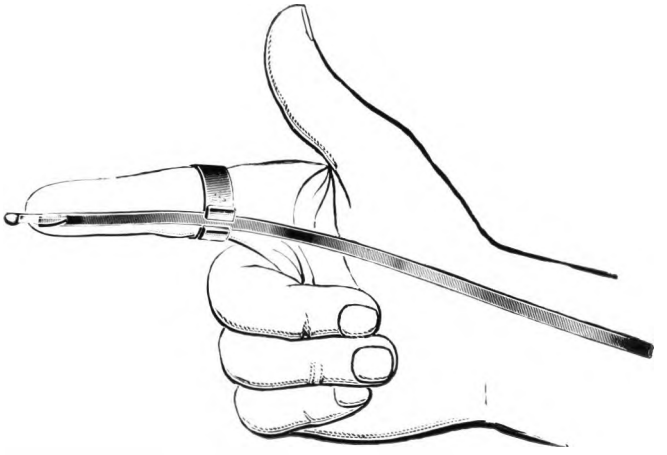
GU1769 Aortic Dilator, 2 blade, Brock's, stainless steel.



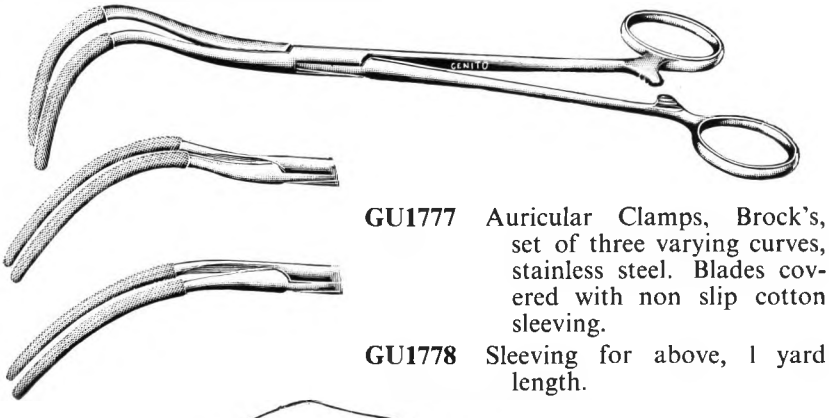
GU1770 Aortic Dilator, 3 blade, Brock's, stainless steel.



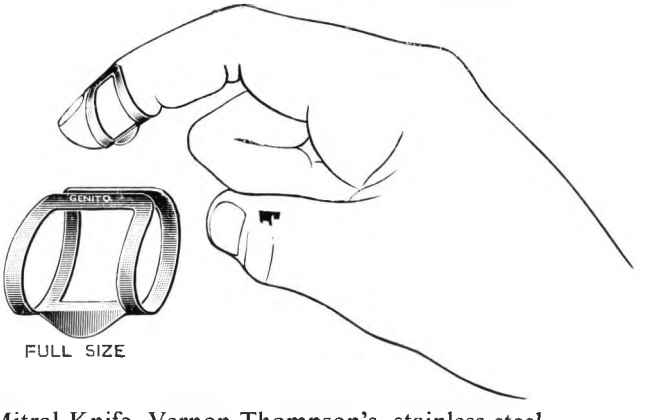
GU1771 Aortic Dilator, 3 blade, with guide wire, G.U. modification of Bailey's.



GU1772 Mitral Knife, Brock's, set consisting of:—medial blade, probe ended, lateral blade, ring for index finger and ring for little finger.
GU1773 Medial Mitral Knife Blade, Brock's.
GU1774 Lateral Mitral Knife Blade, Brock's.
GU1775 Index Finger Ring, Brock's.
GU1776 Little Finger Ring, Brock's.

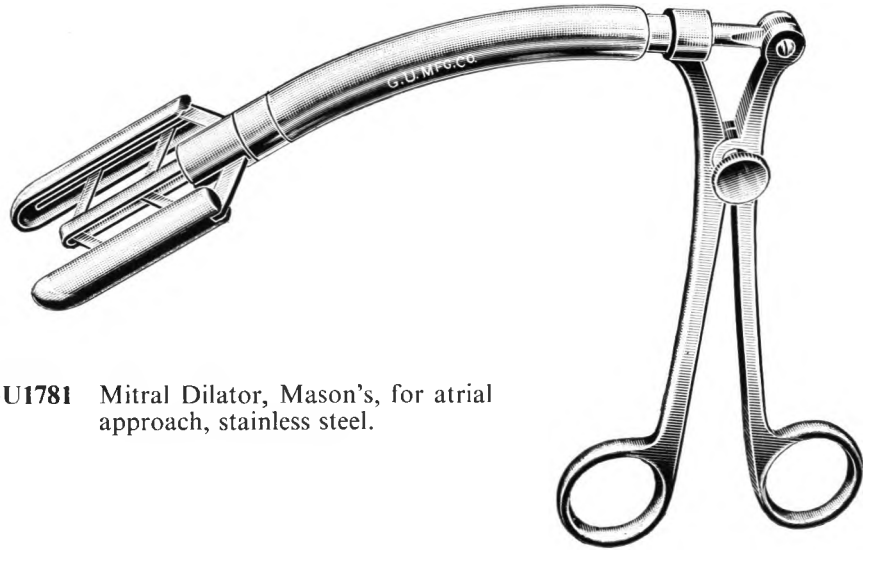


GU1777 Auricular Clamps, Brock's, set of three varying curves, stainless steel. Blades covered with non slip cotton sleeving.
GU1778 Sleeving for above, 1 yard length.



GU1779 Mitral Knife, Vernon Thompson's, stainless steel.

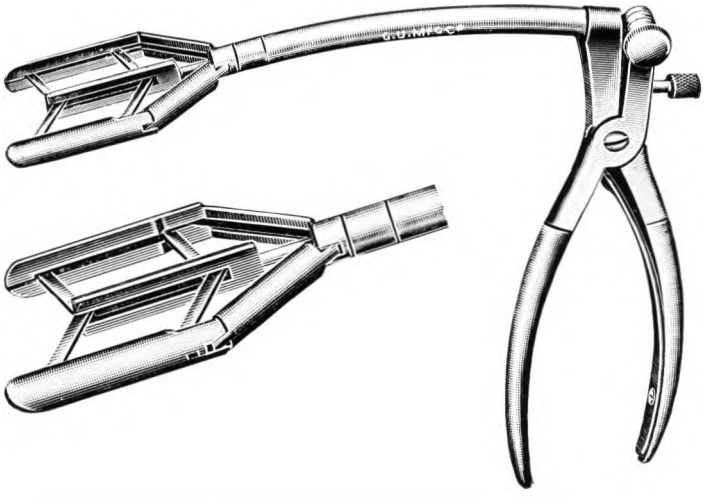
GU1780 Transventricular Mitral Knife, Mullard's, stainless steel.



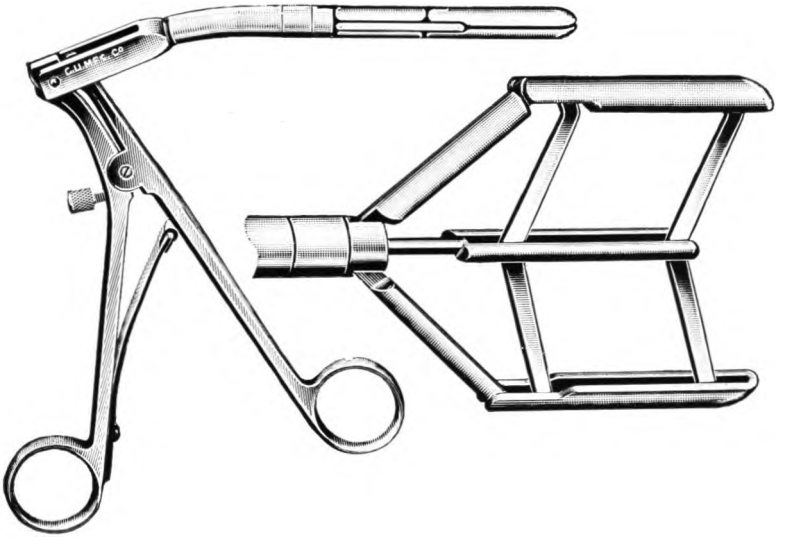
GU1781 Mitral Dilator, Mason's, for atrial approach, stainless steel.

GU1782 Cardiac Snare, Rumel's, chromium plated.

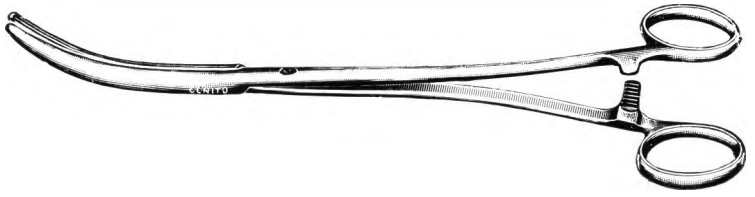
GU1783 Cardiac Snare, Mason's modification of Rumel's, light model with clamping screw. (*Not illustrated*).



GU1784 Transventricular Mitral Dilator, Tubbs', stainless steel.



GU1785 Mitral Dilator, Bentall's, for atrial approach, stainless steel.
(The head of this dilator is interchangeable and identical with the standard Tubbs' dilator head).



GU1786 Coarctation Aorta Clamp, Crafoord's, stainless steel, blades covered with non slip cotton sleeving.

GU1787 Ditto, straight.

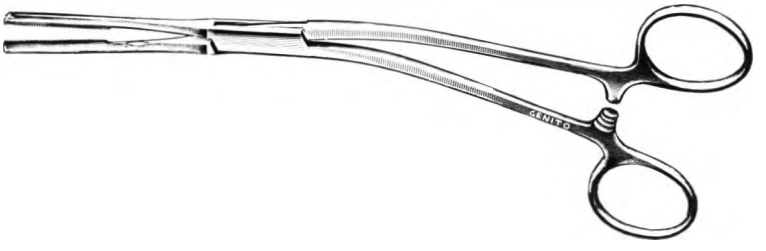
GU1788 Sleeving for above, 1 yard length.

GU1789 Coarctation Clamp, Crafoord's, full curve, stainless steel.

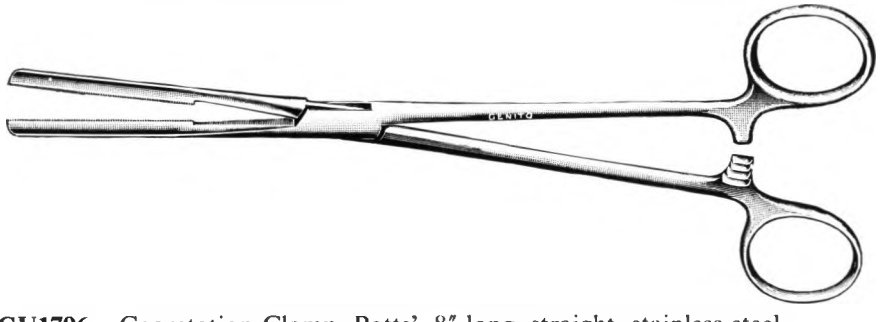
GU1790 Coarctation Clamp, Crafoord's, medium curve, stainless steel.

GU1791 Coarctation Clamp, Crafoord's, angled, stainless steel.

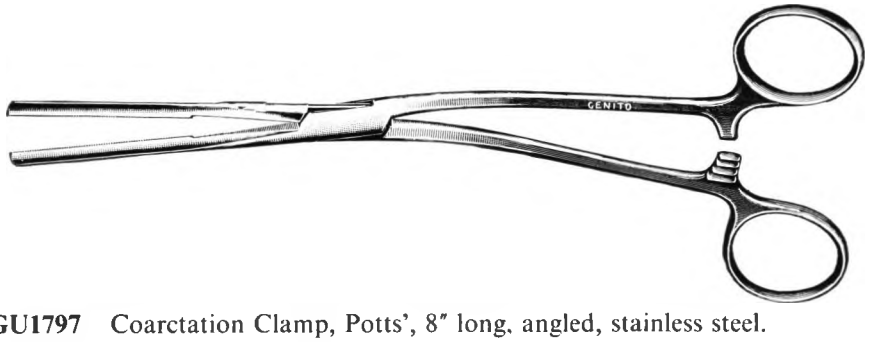
GU1792 Ductus arteriosus Clamp, Potts'. 8″ long, straight, stainless steel.
GU1793 Ductus arteriosus Clamp, Waterston's, modification of Potts', child size 6″ long, straight, stainless steel. (*Not illustrated*).



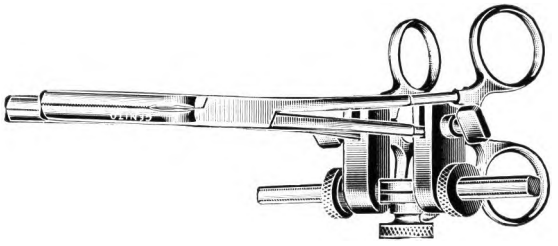
GU1794 Ductus arteriosus Clamp, Potts', 8″ long, angled, stainless steel.
GU1795 Ductus arteriosus Clamp, Waterston's modification of Potts', child size 6″ long, angled, stainless steel. (*Not illustrated*).



GU1796 Coarctation Clamp, Potts', 8″ long, straight, stainless steel.



GU1797 Coarctation Clamp, Potts', 8″ long, angled, stainless steel.



GU1798 Adjustable Vice, Brom's, for holding Potts' coarctation clamps.

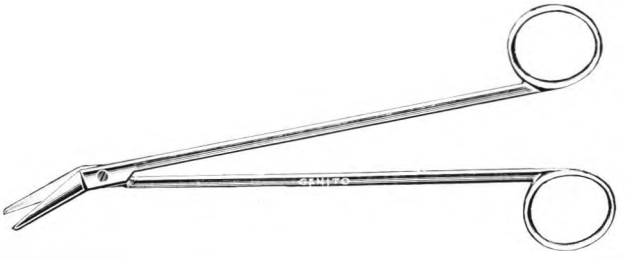
GU1799 Anastomosis Clamp, Potts', spoon shape, 8″ long, stainless steel.
GU1800 Anastomosis Clamp, Waterston's modification of Potts' spoon shape, child size 6″ long, stainless steel. *(Not illustrated).*

GU1801 Anastomosis Clamp, Sellors', angled spoon shape, 8″ long, stainless steel.

Every endeavour has been made to compile an up-to-date and comprehensive Catalogue. The advancing techniques in Surgery create further developments in the production of new instruments, and we invite enquiries for equipment not shewn or described in this Catalogue.

GU1802 Dissecting Scissors, Potts', angled on flat 45°, stainless steel.

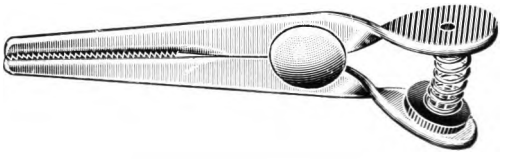
GU1803 Dissecting Scissors, Potts', angled on edge 45°, stainless steel.



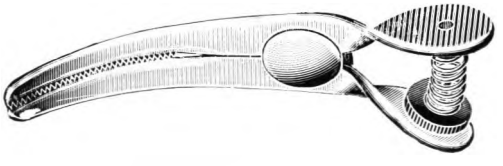
GU1804 Dissecting Scissors, Potts', angled on edge 25°, stainless steel.

GU1805 Dissecting Scissors, Boyd's, 7″ long, sharp points, stainless steel.
GU1806 Ditto, 8″ long.
GU1807 Ditto, 9″ long.

GU1808 Dissecting Scissors, Metzembaum's, slightly curved, 6″ long, blunt, stainless steel.
GU1809 Ditto, 7″ long.
GU1810 Ditto, 8″ long.
GU1811 Ditto, 9″ long.

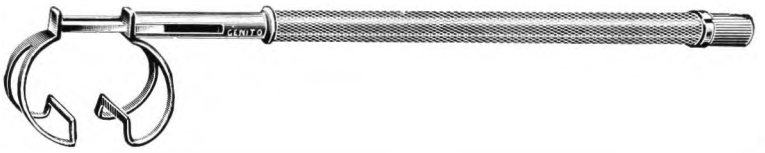


GU1812 Bulldog Clamp, Potts', straight, 4 cm. blades, stainless steel.
GU1813 Ditto, with 5 cm. blades.
GU1814 Ditto, with 6 cm. blades.



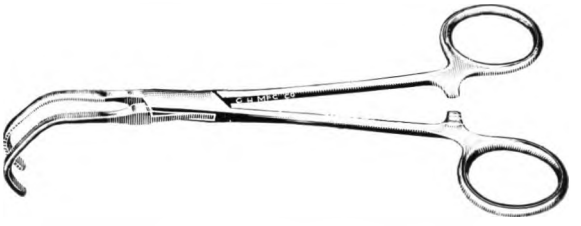
GU1815 Bulldog Clamp, Potts', half curved, 4 cm. blades, stainless steel.
GU1816 Ditto, with 5 cm. blades.
GU1817 Ditto, with 6 cm. blades.

GU1818 Bulldog Clamp, Potts', full curved, 4 cm. blades, stainless steel.
GU1819 Ditto, with 5 cm. blades.
GU1820 Ditto, with 6 cm. blades.



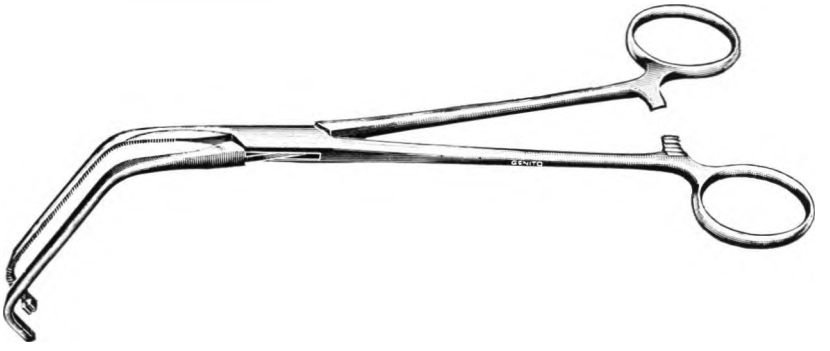
GU1821 Aorta Clamp, Price Thomas' modification of Potts-Smith, $\frac{3}{4}$" dia. stainless steel.
GU1822 Ditto, 1" diameter.
GU1823 Ditto, $1\frac{1}{4}$" diameter.

GU1824 Aorta Clamp, Potts-Smith, small, stainless steel.
GU1825 Ditto, medium.
GU1826 Ditto, large.

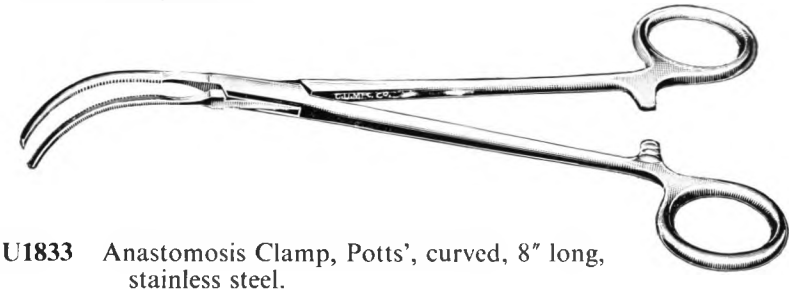


GU1827 Aorta Clamp, Waterston's child size, with Potts' teeth, 2 cm. straight portion of jaws, stainless steel.
GU1828 Bulldog Clamp, Waterston's modification of Potts' double angled 1½ cm. straight portion of jaws, stainless steel. (*Not illustrated*)

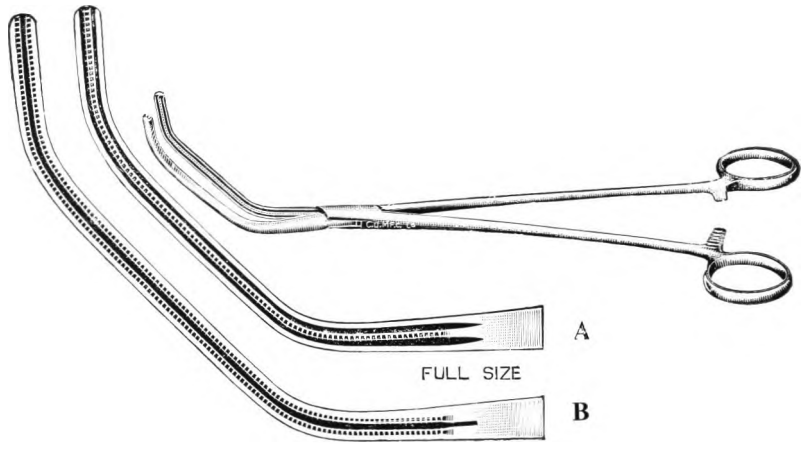
GU1829 Aorta Clamp, Beck's, with Potts' teeth, 3 cm. straight portion of jaws, stainless steel.



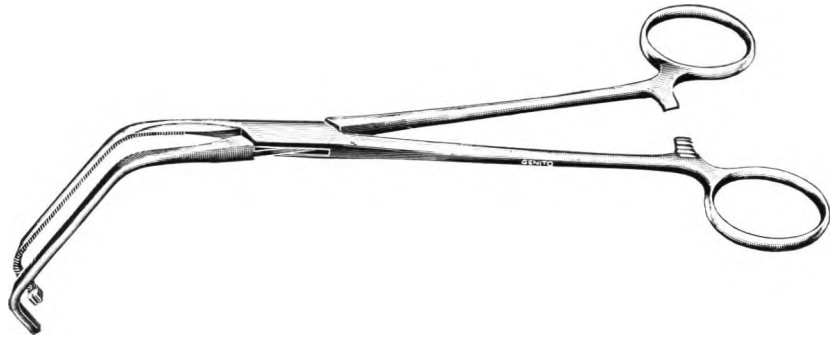
GU1830 Aorta Clamp, Brock's, with Potts' teeth, 4 cm. straight portion of jaws, stainless steel.
GU1831 Ditto, 5 cm.
GU1832 Ditto, 6 cm.



GU1833 Anastomosis Clamp, Potts', curved, 8″ long, stainless steel.

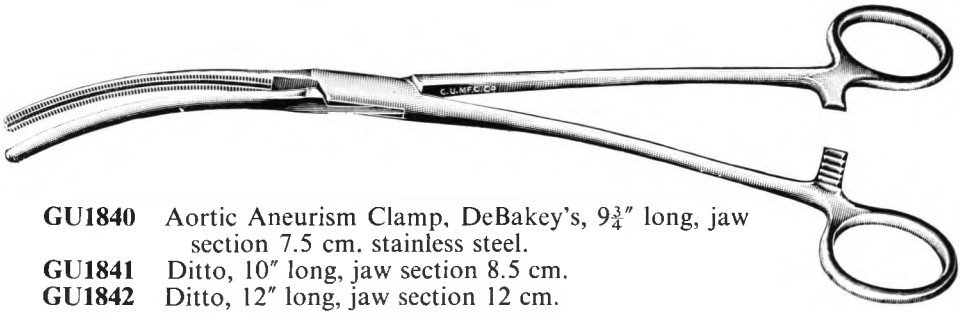


GU1834 Vascular Clamp, Satinsky's, with 4 cm. straight portion of jaws, "A", stainless steel.
GU1835 Ditto, with 5 cm. straight portion of jaws, "B".
GU1836 Ditto, with 10 cm. straight portion of jaws. (*Not illustrated*).



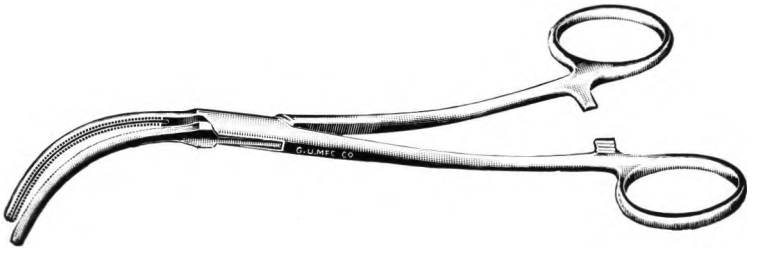
GU1837 Atrial Clamp, Sellors', with Potts' teeth, 7.5 cm. straight portion of jaws, stainless steel.
GU1838 Ditto, with 10 cm. straight portion of jaws.

GU1839 Transverse Sinus Clamp, Sellors', with 10 cm. straight portion of jaws, stainless steel.

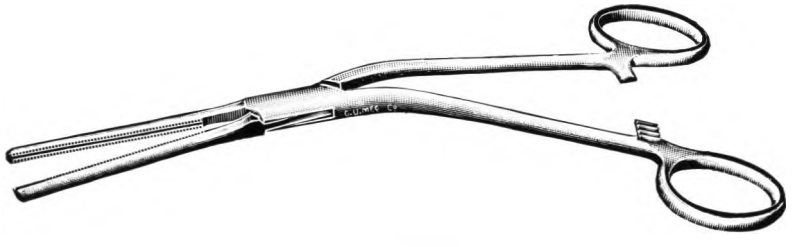


GU1840 Aortic Aneurism Clamp, DeBakey's, 9¾″ long, jaw section 7.5 cm. stainless steel.
GU1841 Ditto, 10″ long, jaw section 8.5 cm.
GU1842 Ditto, 12″ long, jaw section 12 cm.

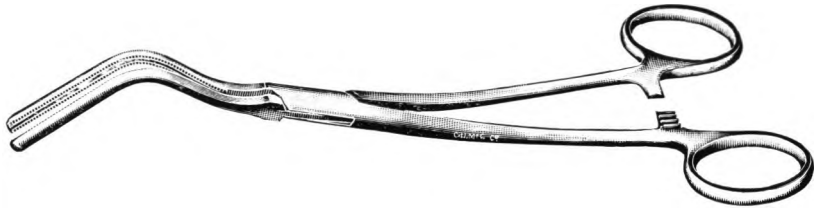
GU1843 Aortic Aneurism Clamp, DeBakey's, full curve, stainless steel.



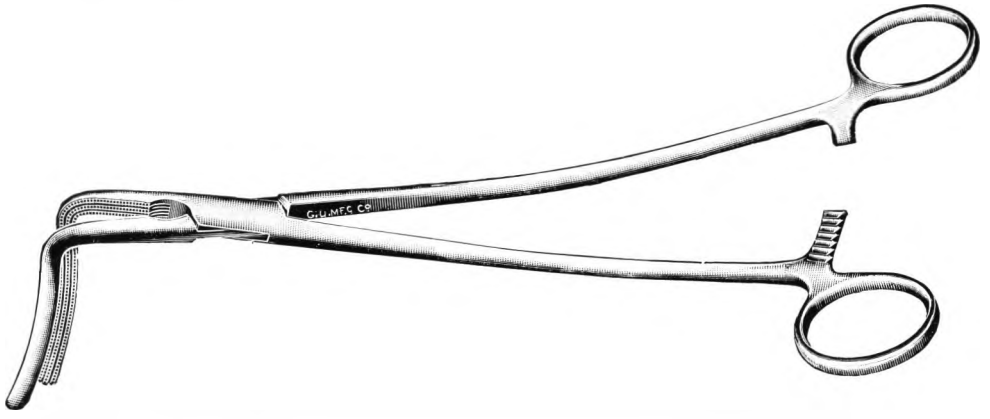
GU1844 Peripheral Vascular Clamp, DeBakey's, curved, stainless steel.



GU1845 Coarctation Clamp, Glover's, angled, stainless steel.



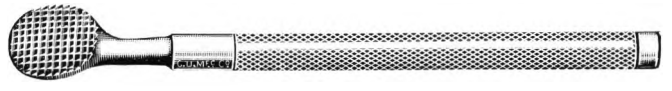
GU1846 Bronchus Clamp, Lee's, stainless steel.



GU1847 Aorta Clamp, DeBakey's, angled spoon shape, stainless steel.

GU1848 Vascular Clamp, Lee's, right angled, stainless steel.

GU1849 Cardiac Abrasor, Beck's, oval, stainless steel.

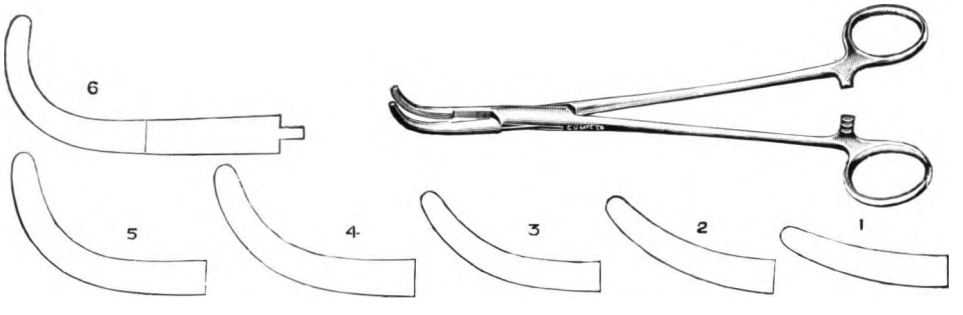


GU1850 Cardiac Abrasor, Beck's, round, stainless steel.

GU1851 Portal Anastomosis Clamp, Barlow's, foroblique, stainless steel. Blades covered with non-slip cotton sleeving.
GU1852 Sleeving for above, 1 yard length.

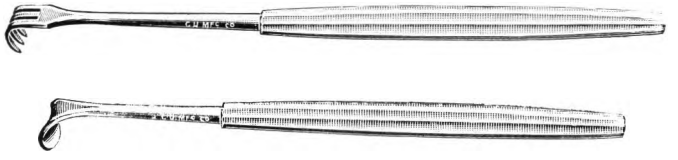
GU1853 Portal Anastomosis Clamp, Barlow's, right angle, stainless steel. Blades covered with non-slip cotton sleeving.
GU1854 Sleeving for above, 1 yard length.

GU1855 Bulldog Clamp, Barlow's, extra long blades, stainless steel. Blades covered with non-slip cotton sleeving.
GU1856 Sleeving for above, 1 yard length.

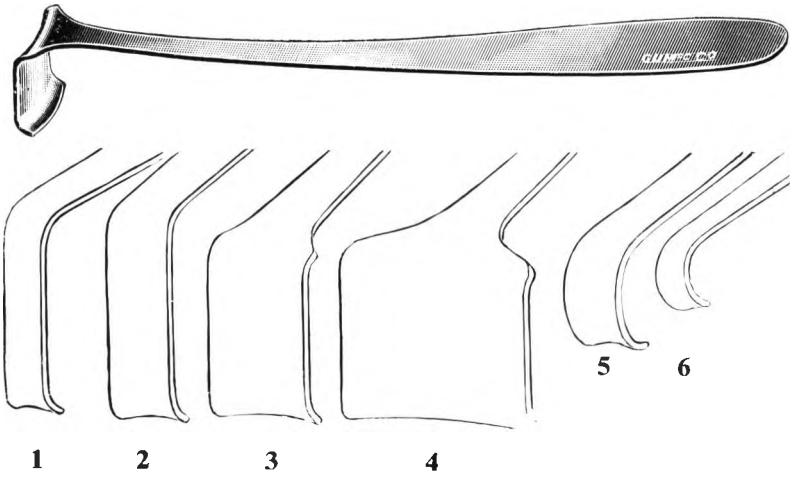


GU1857 Ligature Carrying and Dissecting Forceps, Hammersmith Hospital pattern, matched set of six, stainless steel, with sand-blasted handles.

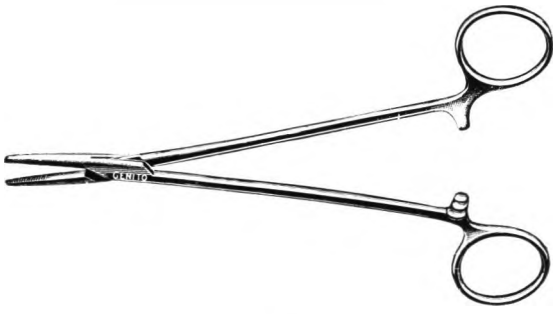
GU1858 Atrial Retractors, Brock's, set of three $\frac{1}{4}''$, $\frac{3}{8}''$ and $\frac{1}{2}''$ wide, stainless steel, with sand-blasted handles.



GU1859 Atrial Retractors, Sellors', set consisting of: 1 each $\frac{3}{16}''$, $\frac{7}{16}''$ and $\frac{5}{8}''$ wide retractors and 1 Rake, stainless steel, with sand-blasted handles.

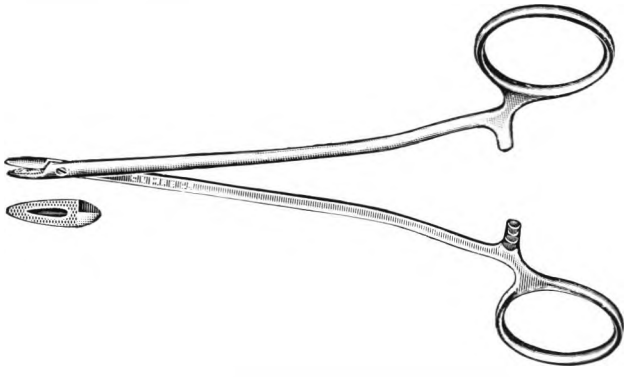


GU1860 Intra-Cardiac, Retractors, Sellors', set of 6, stainless steel.

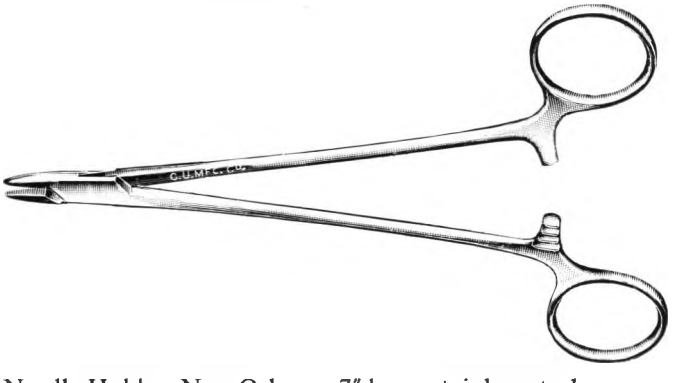


GU1861 Needle Holder, Blalock's, 7½″ long, stainless steel.
GU1862 Ditto, 10″ long.

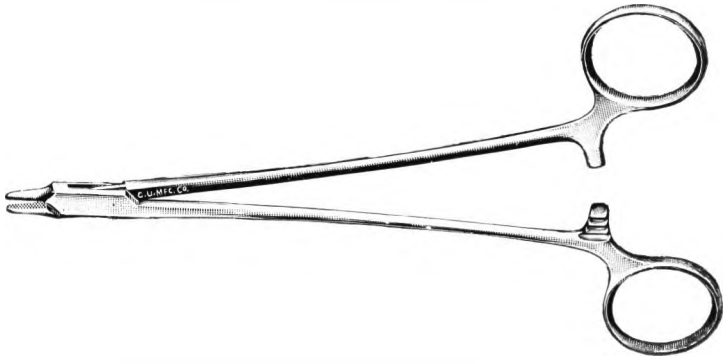
GU1863 Needle Holder, Sellors', for fine atraumatic needles, 8″ long, stainless steel.
GU1864 Ditto, 9″ long.
GU1865 Ditto, 10″ long.



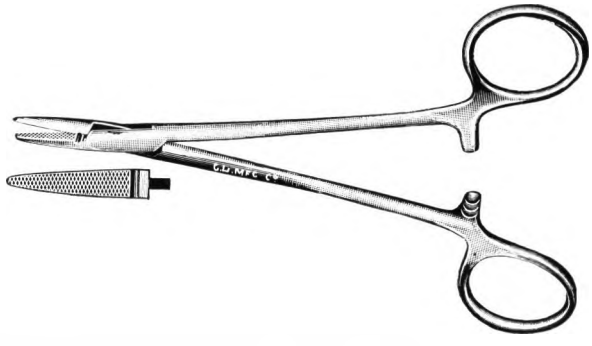
GU1866 Needle Holder, French type, screw joint, very delicate, for atraumatic needles, stainless steel.



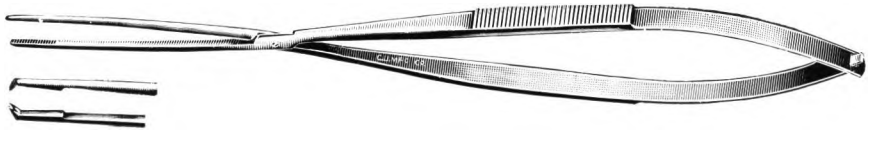
GU1867 Needle Holder, New Orleans, 7″ long, stainless steel.



GU1868 Needle Holder, Potts', 7½″ long, stainless steel.



GU1869 Needle Holder, Cleland's, 6″ long, stainless steel.



GU1870 Dissecting Forceps, light, spring type with cross action, screw joint, 9″ long, stainless steel.
GU1871 Ditto, with 1 × 2 teeth.

GU1872 Tissue Forceps, 4 in 5 extra fine teeth, 6″ long, stainless steel.
GU1873 Ditto, 8″ long.
GU1874 Ditto, 2 in 3 extra fine teeth, 6″ long.
GU1875 Ditto, 8″ long.

Femoral Cannula, Bentall's, with rolled edges to bevel, internally polished stainless steel.

GU1876	1.5 m.m. inside diameter.	**GU1882**	4.5 m.m. inside diameter.
GU1877	2 m.m. ,, ,,	**GU1883**	5 m.m. ,, ,,
GU1878	2.5 m.m. ,, ,,	**GU1884**	5.5 m.m. ,, ,,
GU1879	3 m.m. ,, ,,	**GU1885**	6 m.m. ,, ,,
GU1880	3.5 m.m. ,, ,,	**GU1886**	6.5 m.m. ,, ,,
GU1881	4 m.m. ,, ,,	**GU1887**	7 m.m. ,, ,,

GU1888 Venous Catheter, Hammersmith Hospital pattern, 10″ long, transparent plastic, size $\frac{5}{32}$″.

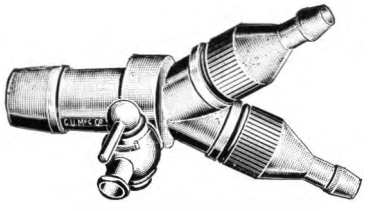
GU1889	Ditto, $\frac{3}{16}$″.	**GU1891**	Ditto, $\frac{1}{4}$″.
GU1890	Ditto, $\frac{7}{32}$″.	**GU1892**	Ditto, $\frac{5}{16}$″.

GU1893 Venous Catheter, Guy's Hospital pattern, 24″ long, transparent plastic, size $\frac{5}{32}$″.

GU1894	Ditto, $\frac{3}{16}$″.	**GU1896**	Ditto, $\frac{1}{4}$″.
GU1895	Ditto, $\frac{7}{32}$″.	**GU1897**	Ditto, $\frac{5}{16}$″.

Iliac Cannula, angled, with back mount to take $\frac{3}{8}$″ inside diameter tubing, internally polished stainless steel.

GU1898	2.5 m.m. inside diameter.	**GU1902**	4.5 m.m. inside diameter.
GU1899	3.0 m.m. ,, ,,	**GU1903**	5.0 m.m. ,, ,,
GU1900	3.5 m.m. ,, ,,	**GU1904**	5.5 m.m. ,, ,,
GU1901	4.0 m.m. ,, ,,	**GU1905**	6.0 m.m. ,, ,,

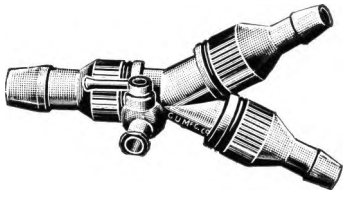


GU1906 "Y" Connector for use with heart/lung machines, Hammersmith Hospital pattern, with $\frac{1}{2}$″ fixed olive and two detachable olives, with Luer lock stopcock, internally polished stainless steel.

When ordering please state sizes of detachable olives required.

GU1907 Extra detachable olives size $\frac{1}{2}$″ inside diameter.

GU1908	Ditto, $\frac{3}{8}$″.	**GU1910**	Ditto, $\frac{1}{4}$″.
GU1909	Ditto, $\frac{5}{16}$″.	**GU1911**	Ditto, $\frac{3}{16}$″.



GU1912 "Y" Connector for use with heart/lung machines, Mayo Clinic pattern, with three detachable olives and Luer lock stopcock, internally polished stainless steel.

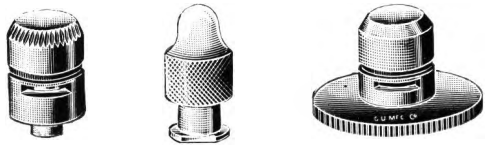
When ordering please state sizes of detachable olives required.

GU1913 Extra detachable olives size $\frac{1}{2}''$ inside diameter.
GU1914 Ditto, $\frac{3}{8}''$.
GU1915 Ditto, $\frac{5}{16}''$.
GU1916 Ditto, $\frac{1}{4}''$.
GU1917 Ditto, $\frac{3}{16}''$.

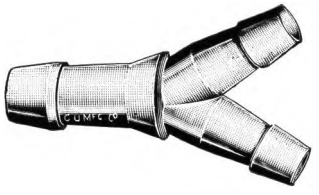
GU1918 "Y" Connector for use with heart/lung machines, Mayo Clinic pattern, with three detachable olives, as illustration above but without Luer lock stopcock. Internally polished stainless steel.

When ordering please state sizes of detachable olives required.

GU1919 Extra detachable olives, size $\frac{1}{2}''$ inside diameter.
GU1920 Ditto, $\frac{3}{8}''$.
GU1921 Ditto, $\frac{5}{16}''$.
GU1922 Ditto, $\frac{1}{4}''$.
GU1923 Ditto, $\frac{3}{16}''$.



GU1924 Male Deadender, Luer lock fitting.
GU1925 Female Deadender, Luer lock fitting.
GU1926 Male Deadender to fit Luer lock tap, with shield to prevent tap on heart/lung connectors being opened.



"Y" Connector for use with heart/lung machines, internally polished stainless steel.

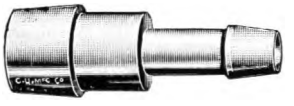
GU1927 Size $\frac{1}{2}'' \times \frac{3}{8}'' \times \frac{1}{4}''$.
GU1928 Size $\frac{1}{2}'' \times \frac{3}{8}'' \times \frac{3}{8}''$.
GU1929 Size $\frac{3}{8}'' \times \frac{3}{8}'' \times \frac{3}{8}''$.
GU1930 Size $\frac{3}{8}'' \times \frac{1}{4}'' \times \frac{1}{4}''$.
GU1931 Size $\frac{1}{4}'' \times \frac{1}{4}'' \times \frac{1}{4}''$.

Straight Connector for use with heart/lung machines, internally polished stainless steel.

GU1932 Size $\frac{1}{2}''\times\frac{1}{2}''$.
GU1933 Size $\frac{3}{8}''\times''\frac{3}{8}$.
GU1934 Size $\frac{1}{4}''\times\frac{1}{4}''$.
GU1935 Size $\frac{3}{16}''\times\frac{3}{16}''$.

"T" Connector for use with heart/lung machines, internally polished stainless steel. (*Not illustrated*).

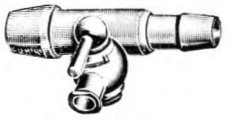
GU1936 Size $\frac{1}{4}''\times\frac{1}{4}''\times\frac{1}{4}''$.
GU1937 Size $\frac{1}{2}''\times\frac{1}{2}''\times\frac{3}{8}''$.
GU1938 Size $\frac{3}{8}''\times\frac{3}{8}''\times\frac{3}{8}''$.



Reducing Connector for use with heart/lung machines, internally polished stainless steel.

GU1939 Size 1″ to $\frac{1}{2}''$.
GU1940 Size 1″ to $\frac{3}{8}''$.
GU1941 Size 1″ to $\frac{1}{4}''$.
GU1942 Size $\frac{3}{4}''$ to $\frac{1}{2}''$.
GU1943 Size $\frac{3}{4}''$ to $\frac{3}{8}''$.
GU1944 Size $\frac{3}{4}''$ to $\frac{1}{4}''$.
GU1945 Size $\frac{5}{8}''$ to $\frac{1}{2}''$.
GU1946 Size $\frac{5}{8}''$ to $\frac{3}{8}''$.
GU1947 Size $\frac{1}{2}''$ to $\frac{3}{8}''$.
GU1948 Size $\frac{1}{2}''$ to $\frac{1}{4}''$.
GU1949 Size $\frac{3}{8}''$ to $\frac{1}{4}''$.
GU1950 Size $\frac{1}{4}''$ to $\frac{3}{16}''$.
GU1951 Size $\frac{1}{4}''$ to $\frac{1}{8}''$.
GU1952 Size $\frac{5}{16}''$ to $\frac{1}{4}''$.

Any of the above straight, reducing or "Y" connectors can be fitted with a Luer lock stopcock.



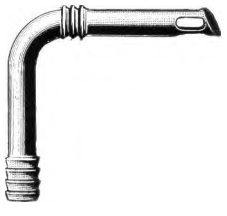
GU1953 Reducing Connector with Luer lock stopcock, for use with heart/lung machines, size $\frac{3}{8}''$ to $\frac{1}{4}''$, internally polished stainless steel.

GU1954 Sharp Dissector for cannulating arteries, stainless steel.

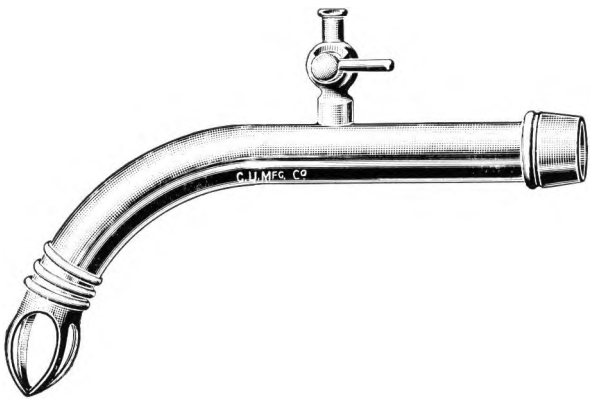
GU1955 Pulmonary Cannula, Westminster Hospital pattern, 3 m.m. inside diameter, internally polished stainless steel.
GU1956 Ditto, 4.0 m.m. inside diameter.
GU1957 Ditto, 5.0 m.m. inside diameter.

GU1958 Femoral Cannula, Westminster Hospital pattern, 2.5 m.m. inside diameter, internally polished stainless steel.
GU1959 Ditto, 3.0 m.m. inside diameter.
GU1960 Ditto, 3.5 m.m. inside diameter.
GU1961 Ditto, 4.0 m.m. inside diameter.
GU1962 Ditto, 4.5 m.m. inside diameter.
GU1963 Ditto, 5.0 m.m. inside diameter.

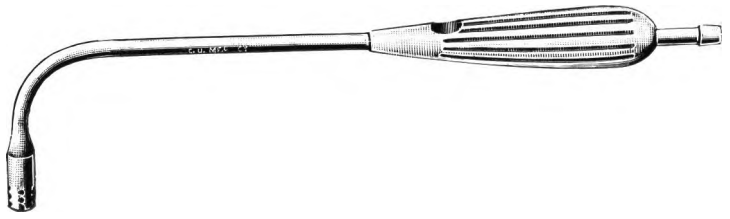
GU1964 Atrial Cannula, Westminster Hospital pattern, straight, size 4 m.m. inside diameter, internally polished stainless steel.
GU1965 Ditto, 6 m.m. inside diameter.
GU1966 Ditto, 9 m.m. inside diameter.



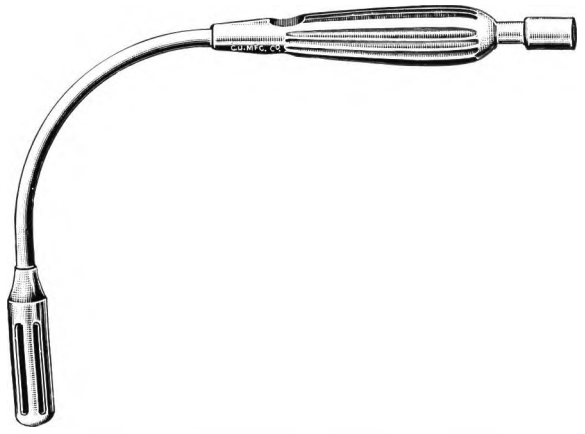
GU1967 Atrial Cannula, Westminster Hospital pattern, angled, size 4 m.m. inside diameter, internally polished stainless steel.
GU1968 Ditto, 6 m.m. inside diameter.
GU1969 Ditto, 9 m.m. inside diameter.



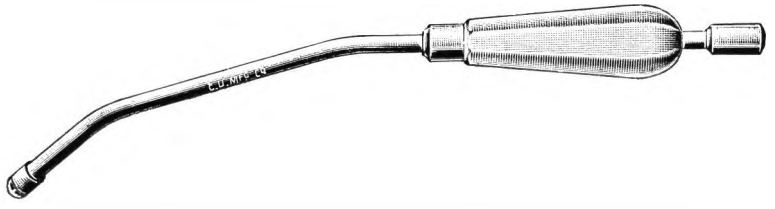
GU1970 Atrial Cannula, Gunning's, with Luer lock tap, $\frac{3}{8}$″ inside diameter, internally polished stainless steel.
GU1971 Ditto, $\frac{1}{2}$″ inside diameter.



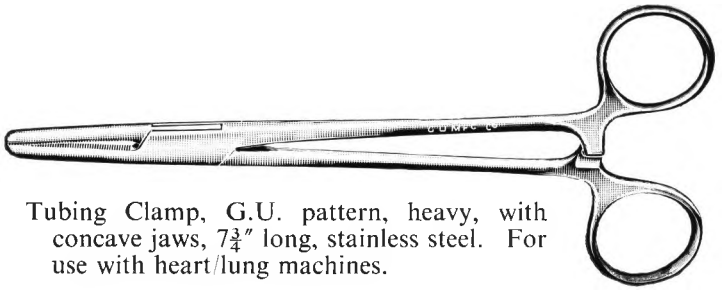
GU1972 Coronary Sinus Suction Tube, Brock's, with detachable nozzle, adult size, rhodium plated.
GU1973 Ditto, infant size.



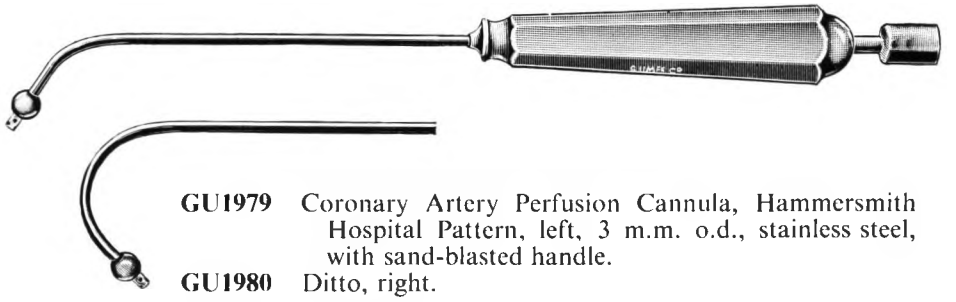
GU1974 Coronary Sinus suction tube, Hammersmith Hospital pattern, with detachable nozzle, adult size, rhodium plated.
GU1975 Ditto, child size.
GU1976 Ditto, infant size.



GU1977 Suction Tube, Brompton Hospital pattern, rhodium plated.



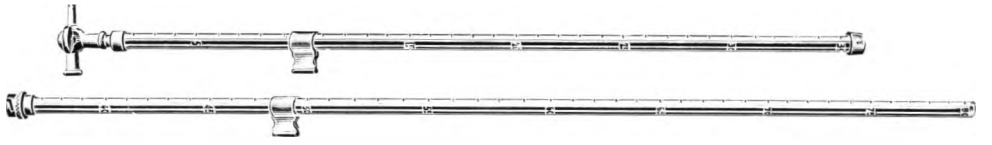
GU1978 Tubing Clamp, G.U. pattern, heavy, with concave jaws, $7\frac{3}{4}''$ long, stainless steel. For use with heart/lung machines.



GU1979 Coronary Artery Perfusion Cannula, Hammersmith Hospital Pattern, left, 3 m.m. o.d., stainless steel, with sand-blasted handle.
GU1980 Ditto, right.

GU1981 Cardiac Cannula, Mason's, malleable, for direct pressure recordings, Luer lock fitting.

GU1982 Cardiac Cannula, Brock's, silver, for direct pressure recordings, Luer lock fitting.



GU1983 Cardiac Saline Manometer, Brock's, two piece, glass with metal mounts, graduated to 80 cms. with two-way tap, Luer lock fitting, complete with needle.
GU1984 Spare two-piece glass manometer.
GU1985 Spare two-way tap.
GU1986 Spare Needles.

GU1987 Left Ventricular Pressure Needle, Ross', stainless steel.

GU1988 Cardiac Pressure Recording Needle, Glen Morrow's, for use through bronchoscope, stainless steel.
GU1989 Polythene Tubing size P.E.50 for use with Ross or Glen Morrow Needles.

CARE AND MAINTENANCE OF U.S.C.I. CARDIAC CATHETERS

Cardiac catheters present some problems not usually met in urological work and probably the most important of which is the problem of absolute cleanliness to insure against fever reactions caused by foreign particles of organic material. Assuming that a cardiac catheter was perfectly clean and sterile when introduced into a patient, it is most important that *immediately* upon removal from the patient the catheter be submerged in plain, warm water not over 110° F. Do not use hot water! Warm water will remove the blood and it should be flushed through the lumen until it comes through perfectly clear. There should be absolutely no time lapse between the removal of the catheter from the patient and being submerged in warm water so that the blood which is in and on the catheter will have no time to congeal, clot or dry, because once this happens the catheter is difficult to clean *perfectly* and febrile reactions become a possibility. Some laboratories have a tap water connection to which the catheter can be connected to flush the lumen thoroughly under pressure.

CLEANING—After cardiac catheters have been thoroughly rinsed in warm water they should at once be transferred to a cleaning solution having a solvating and detergent effect on traces of blood and organic matter. The catheters should not be allowed to dry between the first warm water rinse and the cleaning bath.
The best and safest cleaning bath we can recommend is our Detergicide* developed for cleaning and disinfection of catheters.
Following the cleaning operation the catheters may then be placed in a fresh 1:1000 dilution of Detergicide for disinfection for 20 minutes. Immediately following this disinfecting bath they should be given three separate rinsings in fresh pyrogen-free distilled water before being introduced into the blood stream.

BOILING IN PLAIN WATER—Boiling catheters in plain water, especially the small size woven catheters, is not recommended since the boiling water does not get into the small lumen and fails to sterilize.

BOILING IN DETERGICIDE SOLUTIONS—The quickest way to disinfect catheters is to boil them 5 minutes in a 1:1000 solution of Detergicide. Bacteriological tests with catheters contaminated in cultures of the usual organisms used in these tests indicate that this method is equivalent in germicidal efficiency to the autoclave. Also, the immersion time of 5 minutes is short enough so that moisture absorption is not excessive and this method will not shorten catheter life as rapidly as autoclaving.

AUTOCLAVING WOVEN CATHETERS—Woven catheters may be autoclaved but these special precautions must be observed:
Wrap the properly cleaned catheters in gauze or towels being careful not to coil sharply, preferably in a coil not less than 8 inches in diameter, and autoclave 15 minutes at 15 lb. pressure (250° F.) If coiled too sharply the catheter coating may crack or split at the point of stress when subjected to the heat and steam pressure in the autoclave.

"DON'TS" IN THE HANDLING OF CATHETERS—Here are the agents from which woven catheters should be protected:

1. Alcohol, its esters and ether.
2. Cresols and phenols, such as Lysol, hexachlorophene, carbolic acid, all soaps and jellies containing phenyl or phenol compounds.
3. Glycerine.
4. Cleaning agents that are alkaline or contain acetone or solvents of any kind.
5. Household soaps, tincture of green soap, peroxide, mercury compounds, or chemicals containing active chlorine or hypochlorites.
   If Detergicide solutions or any other quaternary ammonium type of germicide is used for cleaning or disinfection, do not use soap or soap solutions at any time on the catheters because soaps and quaternary ammonium compounds (such as Detergicide) are incompatible and form sticky precipitates.
6. Don't coil woven catheters into a coil less than 8 inches in diameter if they are to be heat sterilized.

*Detergicide is described on page 339.

7. Don't soak, boil or autoclave catheters longer than necessary to accomplish the purpose intended because moisture may become absorbed to the point where ideal physical characteristics, such as flexibility, may be changed and the catheter coating damaged. Catheter coatings do have definite limitations on life when subjected to heat, moisture or water, various chemical agents and also normal use.
8. Don't heat or autoclave catheters above 250° F. or longer than 20 minutes or the life of the coating will be greatly shortened.

AVERAGE CATHETER LIFE, DEGREE OF STIFFNESS—The life of a cardiac catheter may vary greatly depending on the amount and severity of use in each individual case and the method used to clean and sterilize.

On the average with the best of care in all respects a cardiac catheter may be expected to last several months when used on about two cases per week but it is entirely possible to ruin one the first time used.

The degree of stiffness of a catheter will change if it is soaked in solution too long and the pressure of autoclaving does cause considerable moisture to be absorbed in the coating. This absorbed moisture will make the catheter softer and the best method to restore the original stiffness is to dry in an oven at 150° F. for one to two hours. Do not subject to more than 150° F.

If autoclaving is the routine method used to sterilize cardiac catheters, they will become softer and remain so until the absorbed moisture is removed by drying.

Any cardiac catheter has reached the end of its useful life when the coating finally loses its elasticity and cracks when flexed. Only by careful inspection before each use can the condition of the catheter be determined.

Repeated autoclaving for sterilization will eventually cause sufficient polymerization of the catheter coating to reduce its elasticity to the point where it may crack. Cardiac catheters are not metallic instruments and do have a definite safe service life beyond which they should be discarded.

GU1990 Cardiac Catheter, Cournand, single lumen, sizes 4 to 14 French gauge, 50 cm. long, Luer lock fitting. *Woven nylon.*
GU1991 Ditto, 100 cm. long, 4 to 14 French gauge.
GU1992 Ditto, 125 cm. long, 4 to 14 French gauge.
GU1993 Ditto, 150 cm. long, 4 to 14 French gauge.

GU1994 Cardiac Catheter, Goodale Lubin, single lumen, similar to Cournand catheter but with addition of two lateral opposed openings close to distal tip, sizes 4 to 10 French gauge, 50 cm. long, Luer lock fitting. *Woven nylon.*
GU1995 Ditto, 100 cm. long, 4 to 10 French gauge.
GU1996 Ditto, 125 cm. long, 4 to 10 French gauge.
GU1997 Ditto, 150 cm. long, 4 to 10 French gauge.

GU1998 Cardiac Catheter, Cournand, double lumen, second opening 12 cm. from distal tip, sizes 7, 8, 9 French gauge, 50 cm. long. Luer lock fitting. *Woven nylon.*
GU1999 Ditto, 100 cm. long, sizes 5, 7, 9 French gauge.
GU2000 Ditto, 125 cm. long, sizes 5, 7, 9 French gauge.
GU2001 Ditto, 150 cm. long, size 9 French gauge only.

GU2002 Cardiac Catheter, Goodale-Lubin, double lumen, similar to Cournand double lumen but with addition of two lateral opposed openings close to the distal tip, sizes 8 and 9 French gauge, 100 cm. long, Luer lock fitting. *Woven nylon.*
GU2003 Ditto, 125 cm. long, 8 and 9 French gauge.

GU2004 Electrode, Cournand, electrode sealed in the distal tip, no opening for blood sampling, etc., size 6 French gauge, 100 cm. long. *Woven nylon.*

GU2005 Electrode Catheter, Cournand, similar to standard Cournand cardiac catheter but with addition of an electrode ring flush with the surface close to the distal tip, conductor in wall and terminal contact at proximal end. This Electrode catheter may be used as a cardiac catheter as well as an electrode. Sizes 5 to 9 French gauge, 50 cm. long. *Woven nylon.*
GU2006 Ditto, 100 cm. long, 5 to 9 French gauge.
GU2007 Ditto, 125 cm. long, 5 to 9 French gauge.

GU2008 Platinum Electrode Catheter, similar to above, but with a pure platinum electrode, sizes 5 and 6 French gauge, 50 cm. long, *smooth bore nylon with a reinforcing braid.*
GU2009 Ditto, sizes 5 to 9 French gauge, 100 cm. long.
GU2010 Ditto, sizes 5 to 9 French gauge, 125 cm. long.

GU2011 Aortographic Catheter, Lehman, similar to Cournand catheter except the wall is very thin. The lumen is therefore larger, but the catheter is necessarily less opaque to X-ray. The distal end is curved for 2½ cm., sizes 4 to 12 French gauge, 30 cm. long. Luer lock fitting. *Woven nylon.*

GU2012 Ditto, 50 cm. long, sizes 4 to 12 French gauge.

GU2013 Ditto, 80 cm. long, sizes 4 to 12 French gauge.

GU2014 Ditto, 100 cm. long, sizes 4 to 12 French gauge.

GU2015 Ditto, 125 cm. long, sizes 5 to 12 French gauge.

GU2016 Ditto, 150 cm. long, sizes 5 to 12 French gauge.

GU2017 Aortographic Catheter with Goodale-Lubin tip, similar to above with addition of two lateral, opposed openings close to distal tip. 50 cm. long, sizes 5 to 12 French gauge. *Woven nylon.*

GU2018 Ditto, 80 cm. long, sizes 5 to 12 French gauge.

GU2019 Ditto, 100 cm. long, sizes 5 to 12 French gauge.

GU2020 Ditto, 125 cm. long, sizes 5 to 12 French gauge.

GU2021 Ditto, 150 cm. long, sizes 5 to 12 French gauge.

GU2022 Aortographic Catheter, N.I.H. improved model, similar to the Lehman catheter but with closed tip and 6 round openings arranged in three lateral, opposed pairs within the last 1 cm. of the tip. 50 cm. long, sizes 5 to 12 French gauge. *Smooth bore nylon.*

GU2023 Ditto, 80 cm. long, sizes 5 to 12 French gauge.

GU2024 Ditto, 100 cm. long, sizes 5 to 12 French gauge.

GU2025 Ditto, 125 cm. long, sizes 5 to 12 French gauge.

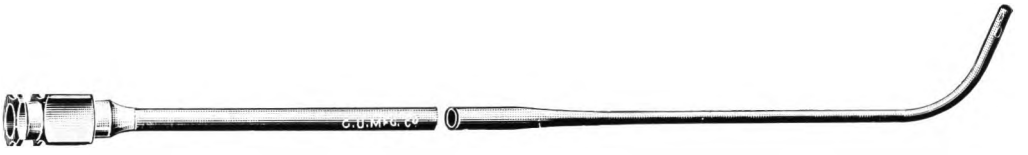
GU2026 Ditto, 150 cm. long, sizes 5 to 12 French gauge.

GU2027 Pacemaker Electrode, Platinum electrode at distal tip, flexible braided stainless steel conductor, ring terminal at proximal end. Designed and constructed for the greatest durability necessary for an indwelling electrode, sizes 5 and 6 French gauge, 100 cm. long.

GU2028 Ditto, 125 cm. long.

GU2029 Ross Catheter, for trans-septal left heart catheterization. Thin wall, without adapter. Sizes 8 and 9 French gauge, 59.5 cm. long.

GU2030 Ross Trans-septal Needle. 24½" long, 17 gauge, stainless steel. For use with above catheter.



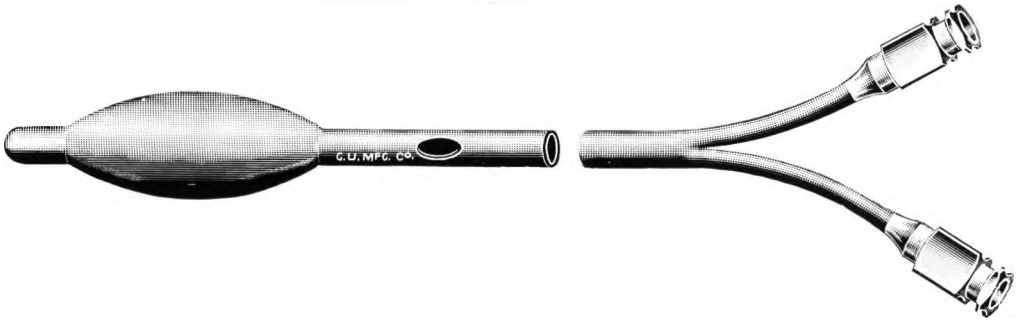
GU2031 Arteriographic Catheter, Sones, for selective arteriography, sizes 7 and 8 French gauge. Both sizes taper to 5 French gauge, thin walled distal tip. Open tip with 4 lateral, opposed openings arranged in two opposed pairs within 7 m.m. of the tip. Both sizes have the same lumen but the size 8 has a heavier wall and stiffer shaft. 80 cm. long. *Woven nylon.*

GU2032 Ditto, 100 cm. long, sizes 7 and 8 French gauge.

GU2033 Ditto, 125 cm. long, sizes 7 and 8 French gauge.

GU2034 Arteriographic catheter, Dotter-Lukas No.1, double lumen. One lumen opening into a balloon located close to the distal tip, the other lumen opening at the tip. 100 cm. long, size 8½ French gauge.

GU2035 Ditto, 125 cm. long, size 8½ French gauge.

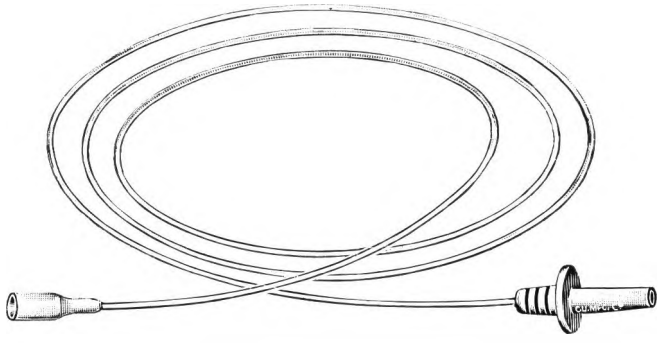


GU2036 Arteriographic catheter, Dotter-Lukas No.2, double lumen. One lumen opening into a balloon located close to the tip, the other lumen opening 1 cm. proximal to the balloon. 100 cm. long, size 8½ French gauge.

GU2037 Ditto, 125 cm. long, size 8½ French gauge.

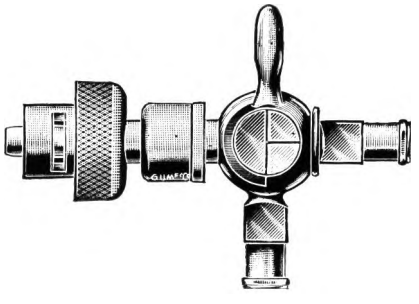
GU2038 Arteriographic catheter, Dotter-Lukas No.3, double lumen, similar No. 2 but the other lumen opening 4 cm. proximal to the balloon. 100 cm. long, size 8½ French gauge.

GU2039 Ditto, 125 cm. long, size 8½ French gauge.



GU2040 Nylon Connecting Cannula, with male and female Luer connections, for connecting catheter to recording apparatus.

GU2041 Rotating Adaptor for cardiac catheters. Adaptor permits rotation of cardiac catheters through 360°, which minimizes the twisting and occasional breakage of the proximal end of the catheter.



GU2042 Rotating Adaptor with two way tap for Cardiac Catheters. Adaptor permits rotation of cardiac catheters through 360°, which minimizes the twisting and occasional breakage of the proximal end of the catheter.

All Cardiac Catheters shewn in this list are manufactured by the United States Catheter & Instrument Corporation

U.S.C.I. TEFLON* CATHETERS

The development of Teflon Cardiac Catheters came about as an outgrowth experience with Teflon in the manufacture of Arterial Prostheses. Teflon is the one plastic having several properties, not possessed by any other, which make it most valuable for use in catheter manufacture as well as a prosthetic material. The following outlines some of the characteristics of Teflon which account for the unusual properties of these catheters:

1. Teflon does not have a distinct melting point and at 621°F it forms a gel which will not flow. As a result Teflon exhibits much less thermoplasticity than all other plastics and within the temperature range of 70°F to 110°F, Teflon catheters do not change appreciably in their degree of stiffness.

2. The curved distal tips of Teflon catheters are heat set at over 600°F and do not flatten out at body temperature thus making introduction easier.

3. Teflon has the lowest coefficient of friction of any known material which not only makes it less traumatic, but easy to introduce.

4. Teflon has a non-wettable surface comparable with the silicones in this respect and the tendency to coagulate blood is thus greatly reduced.

5. Teflon has zero moisture and water absorption. Teflon catheters will not be altered in their physical characteristics, change length or become softer as most other materials will due to water absorption.

6. Teflon is unaffected by any temperature up to 600°F. Teflon catheters may be repeatedly boiled or autoclaved with no harmful effect. They don't soften and do not have to be dried because no moisture can be absorbed.

7. Nothing sticks to Teflon, not even the most adhesive of cements, glue, rubber or synthetic resinous cements. This property makes Teflon easy to clean and it has much less tendency to collect deposits of any kind.

8. The lumen of the Teflon catheter is extremely smooth and friction free, and is ideal for injections where the lowest possible resistance to flow is necessary.

* Teflon is the trade name of E. I. du Pont de Nemours & Co., Inc., for its TFE fluorocarbon resin and fibre.

GU2043 Cardiac Catheter, Cournand type, single lumen, sizes 4 to 12 French gauge, 50 cm. long. **Teflon.**

GU2044 Ditto, 100 cm. long, sizes 4 to 12 French gauge.

GU2045 Ditto, 125 cm. long, sizes 4 to 12 French gauge.

GU2046 Ditto, 150 cm. long, sizes 4 to 12 French gauge.

GU2047 Cardiac Catheter, Goodale-Lubin type, single lumen, similar to the above but with addition of two lateral opposed openings close to the distal tip, sizes 4 to 12 French gauge, 50 cm. long. **Teflon.**

GU2048 Ditto, 100 cm. long, sizes 4 to 12 French gauge.

GU2049 Ditto, 125 cm. long, sizes 4 to 12 French gauge.

GU2050 Ditto, 150 cm. long, sizes 4 to 12 French gauge.

GU2051 Aortographic Catheter, Lehman type, thin walled, the lumen is therefore larger than that of the Cournand single lumen, but the Catheter is necessarily less opaque to X-Ray, the distal end is curved for 2.5 cm., sizes 4 to 10 French gauge, 50 cm. long. **Teflon.**

GU2052 Ditto, 80 cm. long, sizes 4 to 10 French gauge.

GU2053 Ditto, 100 cm. long, sizes 4 to 10 French gauge.

GU2054 Ditto, 125 cm. long, sizes 4 to 10 French gauge.

GU2055 Ditto, 150 cm. long, sizes 4 to 10 French gauge.

GU2056 Aortographic Catheter, Goodale-Lubin tip, but with two lateral opposed openings close to distal tip, sizes 4 to 10 French gauge, 50 cm. long. **Teflon.**

GU2057 Ditto, 80 cm. long, sizes 4 to 10 French gauge.

GU2058 Ditto, 100 cm. long, sizes 4 to 10 French gauge.

GU2059 Ditto, 125 cm. long, sizes 4 to 10 French gauge.

GU2060 Ditto, 150 cm. long, sizes 4 to 10 French gauge.

GU2061 Ross Type Catheter, for trans-septal left heart catheterization, thin wall without adaptor, for use with Ross trans-septal needle, sizes 8 and 9 French gauge, 59.5 cm. long. **Teflon.**

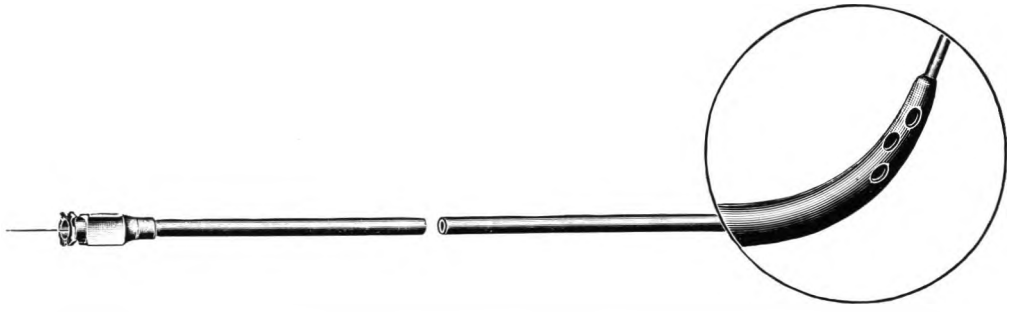
GU2062 Radio-Opaque Teflon Tubing, standard wall, sizes 4 to 12 French gauge, 150 cm. long.

GU2063 Ditto, thin wall, sizes 4 to 12 French gauge, 150 cm. long.

GU2064 Non-Opaque Teflon Tubing, standard wall, sizes 4 to 12 French gauge, 150 cm. long, clear translucent.

GU2065 Ditto, thin wall, sizes 4 to 12 French gauge, 150 cm. long.

All U.S.C.I. Teflon tubings are extruded with an inside diameter as exact as is possible. The outside diameter is then ground to exact size and is kept perfectly uniform throughout each length. The standard wall types will take rather sharp bends and not kink. The thin wall type, while it will have more flow for its size, will naturally kink more easily if bent sharply.



GU2066 Angiocardiography Catheter, Teflon, for use by the Seldinger technique, sizes 5 to 8 French gauge, 100 cm. long, to fit guide wire P.E. 160.

GU2067 Ditto, 125 cm. long, sizes 5 to 8 French gauge.

GU2068 Angiocardiography Catheter, Teflon, for use by the Seldinger technique, sizes 6 to 9 French gauge, 100 cm. long, to fit guide wire P.E. 205.

GU2069 Ditto, 125 cm. long, sizes 6 to 9 French gauge.

A radio-opaque catheter is introduced into the vessel by the technique described by Sven Ivar Seldinger, "Catheter Replacement of the Needle in Percutaneous Arteriography", ACTA Radiologica Vol. 39, 368, 1953.

This group of Teflon catheters developed specifically for the percutaneous method. All have a short tapered distal tip with openings as illustrated. The distal opening is smaller than the lumen of the catheter itself to provide the close fit to the spring guide where it emerges from the tip.

For Seldinger Guide Wires and Needles, see pages 340, 341.

GU2070 High Pressure Injecting Catheter, Shipps. This tapered Teflon catheter is constructed to withstand excessively high pressures of angiographic injecting apparatus. Dr. F. C. Shipps, M.D., tested these special catheters and has found them to withstand pressures in excess of 1,000 p.s.i. There are two laterally opposed side openings close to the distal tip. A short distal tip taper facilitates its entrance into the vessel with the percutaneous puncture technique. The catheter is made of clear Teflon with a standard Luer lock fitting, size 9 tapering to 7½ French gauge, 50 cm. long.

GU2071 Ditto, 80 cm. long.

GU2072 Ditto, 100 cm. long.

GU2073 Ditto, 125 cm. long.

GU2074 Ditto, 150 cm. long.

Brockenbrough Trans-septal left heart Teflon Catheters

These catheters for Dr. Edwin C. Brockenbrough's Trans-septal Technique comprise a complete set of eight catheters for adults and children. This method enables one to obtain both left and right heart data by means of one catheterization procedure. The catheters are used with guide wire P.E. 160 for percutaneous puncture and are supplied as follows with a flared proximal end to be used with removable fittings.

GU2075 Adult Left Heart Catheter, with 3-4 m.m. distal taper to fit P.E. 160 guide wire, four spirally arranged side eyes located 0.5 cm. to 1.5 cm. from tip, size 8½ French gauge, 70 cm. long, radius of curve 2 cm.

GU2076 Ditto, Radius of curve 2.5 cm.

GU2077 Ditto, Radius of curve 3.0 cm.

GU2078 Ditto, Radius of curve 3.5 cm.

GU2079 Adult Right Heart Catheter, Cournand tip curve with eye in concave side 0.5 cm. from tip, size 8½ French gauge, 70 cm. long.

GU2080 Child Left Heart Catheter, with 3-4 m.m. distal tip taper to fit P.E. 160 guide wire, four spirally arranged side eyes located 0.5 cm. to 1.5 cm. from tip, size 7 French gauge, 55 cm. long, radius of curve 1.5 cm.

GU2081 Ditto, Radius of curve 2 cm.

GU2082 Child Right Heart Catheter, Cournand tip curve with eye in concave side 0.5 cm. from tip, size 7 French gauge, 55 cm. long.

Brockenbrough Needle Sets and Removable fittings

GU2083 Adult size Needle set, consisting of straight and curved needles. (Both are necessary for this transseptal procedure).

GU2084 Adult Curved Needle.

GU2085 Adult Straight Needle.

GU2086 Child Size Needle set, consisting of straight and curved needles. (Both are necessary for this transseptal procedure).

GU2087 Child Curved Needle.

GU2088 Child Straight Needle.

GU2089 Removable Fittings, Child size.

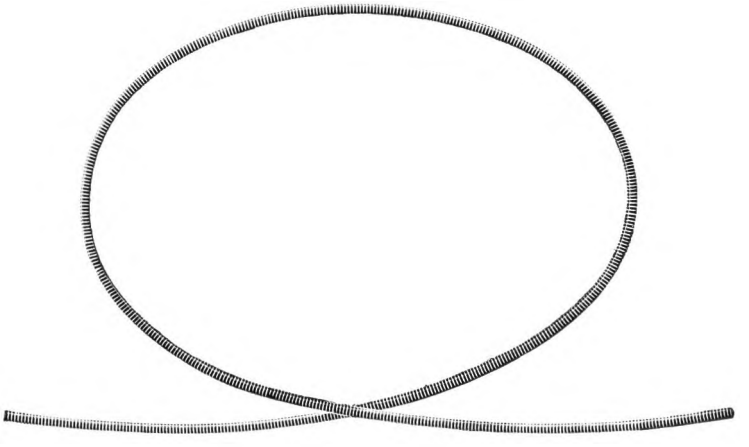
GU2090 Removable Fittings, Adult size.

Reference "A new technique for Left Ventricular Angiocardiography and Trans-septal Left Heart Catheterization" by Dr. Edwin C. Brockenbrough and Dr. Eugene Braunwald; The American Journal of Cardiology, December 1960 *pages* 1061-1064.

GU2091 Detergicide concentrated solution, 16 oz. plastic bottle, makes 40 gallons of 1-1,000 solution.

GU2092 Detergicide concentrated solution, 128 oz. plastic bottle.

Detergicide is recommended by the makers of U.S.C.I. Cardiac Catheters for cleaning, disinfecting and deodorizing. Active ingredients N-Alkyl (C14, C12, C16), Dimethyl, Benzyl Ammonium Chloride 44%. Inert ingredients, Water and octyl phenoxy polyethoxy ethanol 56%.



GU2093 Flexible Guide, spiral wire with extra flexible tip, for use with Seldinger percutaneous arteriography needle and polythene tube size P.E.205 80 cms. long.

GU2094 Ditto, 50 cm. long.

GU2095 Ditto, 100 cm. long.

GU2096 Ditto, 120 cm. long.

GU2097 Flexible Guide, spiral wire with extra flexible tip, for use with Seldinger percutaneous arteriography needle and polythene tube size P.E.160 80 cms. long.

GU2098 Ditto, 50 cm. long.

GU2099 Ditto, 100 cm. long.

GU2100 Ditto, 120 cm. long.

GU2101 Flexible Guide, plastic with wire insert, for use with Seldinger percutaneous arteriography needle and polythene tube size P.E. 205 80 cm. long.

GU2102 Ditto, 50 cm. long.

GU2103 Ditto, 100 cm. long.

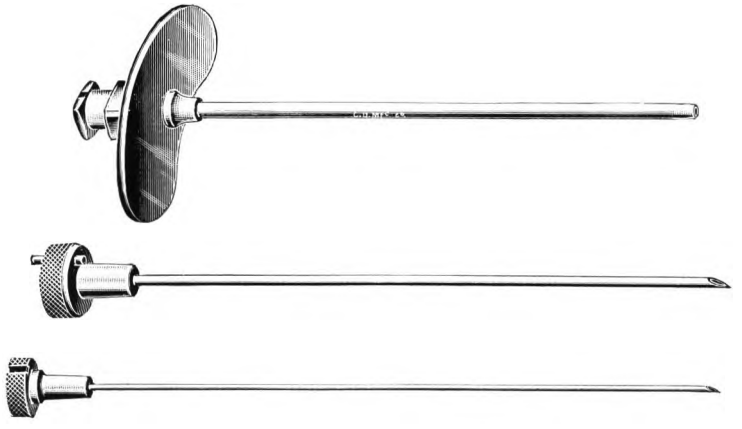
GU2104 Ditto, 120 cm. long.

GU2105 Flexible Guide, plastic with wire insert for use with Seldinger percutaneous arteriography needle and polythene tube size P.E. 160 80 cm. long.

GU2106 Ditto, 50 cm. long.

GU2107 Ditto, 100 cm. long.

GU2108 Ditto, 120 cm. long.



GU2109 Percutaneous Arteriography Needle, Seldinger, for introducing flexible guide for size P.E.205 polythene tubing.

GU2110 Ditto, for size P.E.160.

GU2111 Polythene Tube size P.E.205 (inside diameter 1.57 m.m., outside diameter 2.05 m.m.) for use with percutaneous arteriography guide P.E.205. 5 yard length.

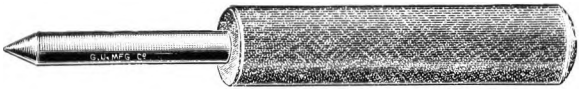
GU2112 Polythene Tube size P.E.160 (inside diameter 1.14 m.m., outside diameter 1.57 m.m.) for use with percutaneous arteriography guide P.E. 160. 5 yard length.

GU2113 Radio-Opaque Catheter Tubing, Odman-Ledin, Red (inside diameter 1.2 m.m., outside diameter 2.2 m.m.) in packet containing 17 ft. for Seldinger Instrumentarium P.E.160.

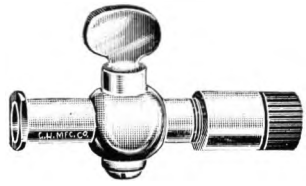
GU2114 Ditto, Green (inside diameter 1.2 m.m., outside diameter 2.4 m.m.) for Seldinger Instrumentarium P.E.160.

GU2115 Ditto, Yellow (inside diameter 1.5 m.m., outside diameter 2.8 m.m.) for Seldinger Instrumentarium P.E.205.

GU2116 Punch for making eyes in Radio-Opaque Tubing P.E.160.
GU2117 Ditto, for Radio-Opaque Tubing P.E.205.



GU2118 Flanging Tool, for Radio-Opaque Tubing.



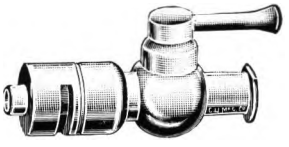
GU2119 Adaptor with tap for Polythene Tubing, size P.E. 205. Luer lock fitting.
GU2120 Ditto, for size P.E. 160.
GU2121 Ditto, for size P.E. 205 Radio-Opaque Tubing.
GU2122 Ditto, for size P.E. 160 Radio-Opaque Tubing.

GU2123 Needle with thin wall for introducing guide wire P.E. 60. Luer lock fitting.
GU2124 Flexible Guide, Plastic with wire insert, for use with above needle, and P.E. 60 polythene tubing, 50 cm. long.
GU2125 Polythene Tube, size P.E. 60 (50 cm. long, inside diameter .75 m.m., outside diameter .97 m.m.).

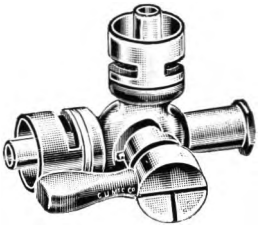
GU2126 Tubing Adaptor, Tuohy, male Luer lock fitting, small size to take tubing 3 to 6 French gauge (1 to 2 m.m. outside diameter).
GU2127 Ditto, medium size to take tubing, 7 to 8 French gauge (2.4 to 2.9 m.m. outside diameter).
GU2128 Ditto, large size to take tubing 9 to 10 French gauge (3 to 3.5 m.m. outside diameter).

GU2129 Tubing Adaptor, Tuohy, female Luer lock fitting, small size to take tubing 3 to 6 French gauge (1 to 2 m.m. outside diameter).
GU2130 Ditto, medium size to take tubing 7 to 8 French gauge (2.4 to 2.9 m.m. outside diameter).
GU2131 Ditto, large size to take tubing 9 to 10 French gauge (3 to 3.5 m.m. outside diameter).

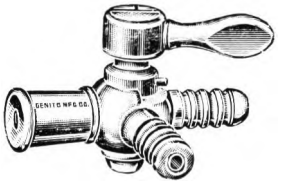
GU2132 Adaptor, female Luer lock to male Luer lock.
GU2133 Adaptor, female Luer lock to tubing.
GU2134 Adaptor, female Luer lock to male Luer.
GU2135 Adaptor, female Luer lock to male Record.
GU2136 Adaptor, female Record to male Record.
GU2137 Adaptor, female Record to tubing.
GU2138 Adaptor, male Luer lock to tubing.



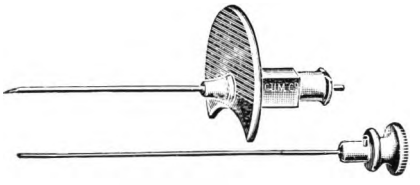
GU2139 One-way Tap, female Luer lock to male Luer lock.
GU2140 One-way Tap, female Luer lock to male Luer.
GU2141 One-way Tap, female Record to male Record.
GU2142 One-way Tap, male Luer lock to $\frac{1}{8}$" i.d. tubing.
GU2143 One-way Tap, female Luer lock to $\frac{1}{8}$" i.d. tubing.
GU2144 One-way Tap, female Record to $\frac{1}{8}$" i.d. tubing.



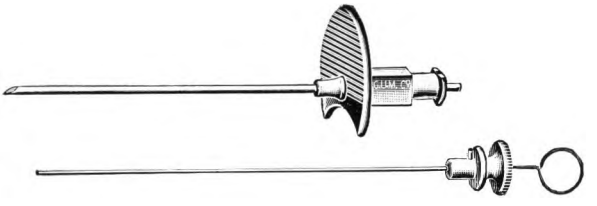
GU2145 Two-way Tap, female Luer lock to male Luer lock with male Luer lock side branch.
GU2146 Two-way Tap, female Luer lock to male Luer lock with tubing side branch.
GU2147 Two-way Tap, female Luer lock to male Luer lock with female Luer lock side branch.
GU2148 Two-way Tap, female Luer lock to tubing with tubing side branch.
GU2149 Two-way Tap, female Luer lock to tubing with female Luer lock side branch.
GU2150 Two-way Tap, female Luer lock to female Luer lock with female Luer lock side branch.
GU2151 Two-way Tap, female Luer lock to female Luer lock with male Luer lock side branch.



GU2152 Two-way Tap, Nelson's, to fit Record syringe, with two tubing mounts.
GU2153 Ditto, with male Record mount and tubing side mount.
GU2154 Ditto, Labat's fitting with male Record mount and tubing side mount.
GU2155 Ditto, Female Luer to male Luer with tubing side branch.



GU2156 Arterial Needle, Riley's, with finger disc, and blunt stilette, 19 s.w.g., $1\frac{1}{2}''$ long.
GU2157 Ditto, 21 s.w.g., $1\frac{1}{2}''$ long.
GU2158 Ditto, 22 s.w.g., $1\frac{1}{2}''$ long.



GU2159 Arterial Needle, Cournand's, with finger disc, inner needle and stilette 18 s.w.g., $2\frac{1}{2}''$ long.
GU2160 Ditto, 19 s.w.g.
GU2161 Ditto, 20 s.w.g.

A full range of instruments for Bronchoscopy and Oesophagoscopy is described in Part 3 of our Catalogue.

PROSTHESIS FOR SURGERY

PROPERTIES OF TEFLON*

Teflon* is classed as a plastic developed and produced by Du Pont, and is a fluorocarbon generally called tetrafluoroethylene. Here are some of the properties which put it in a class even beyond the precious metals:

Teflon fabric made from Teflon yarn, when subjected to the following successive exposure conditions on the same piece of fabric, showed absolutely no loss of tensile strength;

A. Concentrated sulphuric acid, 554°F., boiling 24 hours.
B. Concentrated nitric acid, 212°F., 24 hours.
C. 50% sodium hydroxide (lye) 212°F., 24 hours.
D. Concentrated aqua regia (a mixture of sulphuric, nitric, and hydrochloric acids, all concentrated) 212°F., 24 hours.

Not even pure platinum, one of the most corrosion-resistant metals, could remain undissolved with such treatment. No known fibre possible to use in grafts could even begin to pass this test.

Teflon has zero moisture absorption.

Teflon has a useful temperature environment of 400-525°F. down to minus 100°. It has a softening or gel point of 621°F., but does not begin to decompose until 750°F.

Teflon is flexible and non-brittle at 500° or minus 100° F.

Teflon is the most inert material known and this property, along with its zero moisture absorption, gives it the lowest tissue reactivity and greatest retention of strength with age.

No other fibre approaches Teflon on durability, flex abrasion resistance under adverse chemical conditions and freedom from brittleness, especially with age and exposure.

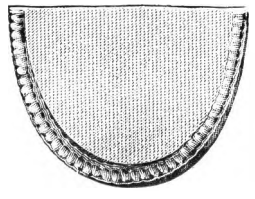
Teflon will not oxidize, hydrolize, or deteriorate and lose strength under any condition met in the body. It is nonflammable, and is virtually insoluble.

Teflon is practically indestructible for use as a graft.

The tensile strength of Teflon is 50,000 lbs. per square inch at 75°F.; elongation is 13% at 75°F. The wet strength is equal to its dry strength. The transverse strength of Teflon is excellent since its dry or wet loop and knot tensile strength is 35,000-39,000 lbs. per square inch.

The coefficient of fibre-to-fibre friction is about 0.2 in Teflon—lowest of all known fibres; as low as ice rubbing on ice. This low friction factor gives Teflon yarn excellent *flex abrasion resistance*, extremely important, since it is this property which will insure against individual fibres cutting each other when an implanted graft is flexed repeatedly in one localized area. No other fibre approaches Teflon in this respect.

* Teflon is the trade name of E. I. du Pont de Nemours & Co., Inc., for its TFE-fluorocarbon resin and fibre.



GU2162 Aortic Valve Leaflet, Bahnson's, size 24 m.m. Teflon fabric.

GU2163 Ditto, 26 m.m.
GU2164 Ditto, 28 m.m.
GU2165 Ditto, 30 m.m.
GU2166 Ditto, 32 m.m.
GU2167 Ditto, 34 m.m.
GU2168 Ditto, 36 m.m.
GU2169 Ditto, 40 m.m.

GU2169a Muller Aortic Valves, size 28 m.m., Teflon fabric.
GU2169b Ditto, 30 m.m.
GU2169c Ditto, 32 m.m.
GU2169d Ditto, 34 m.m.

GU2169e McGoon Aortic Valves, size 20 m.m., Teflon fabric.
GU2169f Ditto, 25 m.m.
GU2169g Ditto, 30 m.m.
GU2169h Ditto, 35 m.m.
GU2169i Ditto, 40 m.m.

GU2169j McGoon Knitted Teflon Tubing, size 20 m.m.
GU2169k Ditto, 25 m.m.
GU2169l Ditto, 30 m.m.
GU2169m Ditto, 35 m.m.
GU2169n Ditto, 40 m.m.

GU2169p Teflon Tape for use with McGoon Tubing, size 2 m.m.

Teflon Fabrics for Surgery

	Teflon Felt size	thickness
GU2170	2″×2″	$\frac{1}{16}$″
GU2171	3″×3″	$\frac{1}{16}$″
GU2172	4″×4″	$\frac{1}{16}$″
GU2173	6″×6″	$\frac{1}{16}$″
GU2174	2″×2″	$\frac{1}{8}$″
GU2175	3″×3″	$\frac{1}{8}$″
GU2176	4″×4″	$\frac{1}{8}$″
GU2177	6″×6″	$\frac{1}{8}$″
GU2178	2″×2″	$\frac{3}{16}$″
GU2179	3″×3″	$\frac{3}{16}$″
GU2180	4″×4″	$\frac{3}{16}$″
GU2181	6″×6″	$\frac{3}{16}$″
GU2182	2″×2″	$\frac{1}{4}$″
GU2183	3″×3″	$\frac{1}{4}$″
GU2184	4″×4″	$\frac{1}{4}$″
GU2185	6″×6″	$\frac{1}{4}$″

Teflon felt, used in many various ways in cardiac surgery as a patch alone and also cemented to a Teflon fabric. Used under sutures to prevent their cutting into tissue.

GU2186 Intra Cardiac Patch, size 2″×2″×1 m.m. thick.

GU2187 Ditto, size 3″×3″×1 m.m. thick.

GU2188 Ditto, size 4″×4″×1 m.m. thick.

For closure of intra-ventricular septal defects. Medium porosity.

GU2189 Outflow Tract Patch, size 4″×4″×1 m.m. thick. Low porosity.

GU2190 Teflon Fabric, size 4″×4″×0.9 m.m. thick. High porosity.

Soft thick knit with a porosity comparable to a knitted arterial graft. Useful for patch grafting. Easy to suture and conforms well.

GU2191 Teflon Fabric, size 4″×4″×0.3 m.m. thick. Low porosity.

Very thin knit used to make Dr. Bahnson's valve leaflets. A dense and very durable fabric considering its light weight.

GU2192 Teflon Fabric, size 4″×4″×0.25 m.m. thick. Medium porosity.

Thinnest knit made, used for aortic valve leaflets.

GU2193 Teflon Fabric, size 4″×4″×0.37 m.m. thick. Medium porosity.

Useful in patch grafting where a thinner fabric than **GU2190** *is desired.*

GU2194 Teflon Fabric, size 4″×4″×0.37 m.m. thick. Low porosity.

This fabric is similar to the preceding one but has a low porosity.

Teflon Fabrics for Surgery

GU2195 Teflon Fabric, size 4″×4″×0.5 m.m. thick. Medium porosity.

Excellent for patch grafting.

GU2196 Teflon Fabric, size 4″×4″×0.5 m.m. thick. Low porosity.

This fabric is similar to the preceding one but has a very low porosity.

GU2197 Teflon Fabric, size 4″×4″×0.7 m.m. thick. Very low porosity.

A special fabric developed as an outflow patch. One side is smooth and impervious while the other is like a miniature towel so its surface will allow ingrowth of tissue.

GU2198 Teflon Fabric, size 6″×6″×0.9 m.m. thick. Very low porosity.

This fabric is similar to the preceding one but thicker and is being used experimentally as a hip joint prosthesis.

GU2199 Teflon Interlock Mesh, openings 1.2 m.m. thickness 0.7 m.m. size $8\frac{1}{2}$″×6″.

GU2200 Ditto, size 17″×6″.

GU2201 Ditto, size 17″×12″.

GU2202 Teflon Interlock Mesh, openings 1.2 m.m. thickness 0.6 m.m. size $8\frac{1}{2}$″×6″.

GU2203 Teflon Interlock Mesh, openings 0.5 m.m. thickness 0.37 m.m. size $8\frac{1}{2}$″×6″.

GU2204 Teflon Interlock Mesh, openings 0.8 m.m. thickness 0.37 m.m. size $8\frac{1}{2}$″×6″.

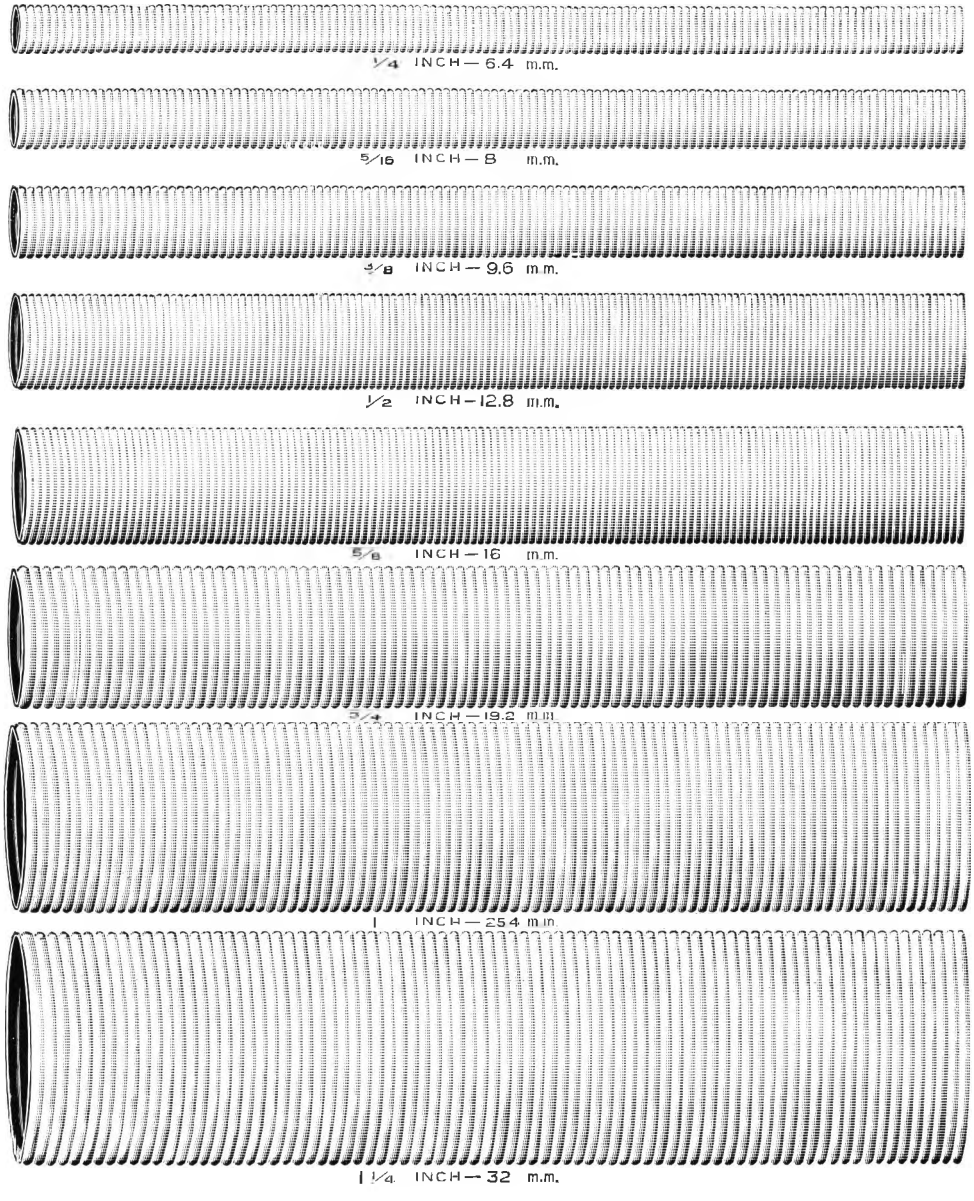
The above interlock mesh fabrics developed in co-operation with Dr. J. Harold Harrison, used in the repair of hernias and defects resulting from destructive wounds or extensive cancer surgery.

GU2205 Teflon Braided Sutures, 100d.-4.
GU2206 Ditto, 100d.-6.
GU2207 Ditto, 200d.-4.
GU2208 Ditto, 200d.-6.
GU2209 Ditto, 400d.-4.
GU2210 Ditto, 400d.-6.

GU2211 Teflon flat braided tape. 1 m.m. wide.
GU2212 Ditto, 2 m.m. wide
GU2213 Ditto, 4 m.m. wide.

SEAMLESS ARTERIAL GRAFTS

For details see opposite page



Seamless Woven Teflon Arterial Graft. 20 inches long.

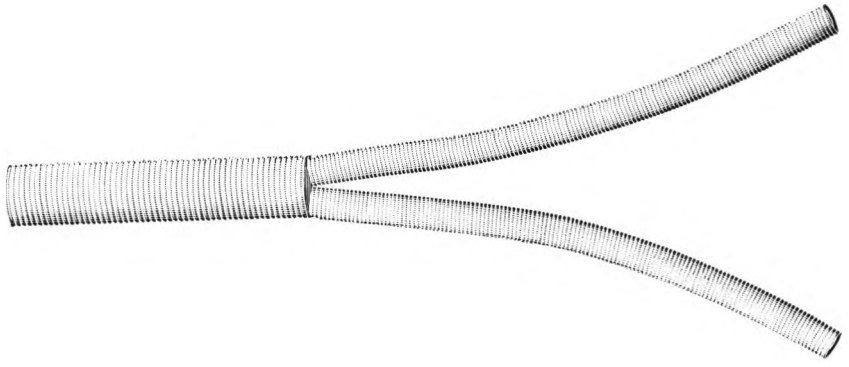
GU2213a	$\frac{3}{16}$″ (4.8 m.m.) diameter.	**GU2218**	$\frac{5}{8}$″ (16.0 m.m.) diameter.
GU2214	$\frac{1}{4}$″ (6.4 m.m.) diameter.	**GU2219**	$\frac{3}{4}$″ (19.2 m.m.) diameter.
GU2215	$\frac{5}{16}$″ (8.0 m.m.) diameter.	**GU2220**	1″ (25.6 m.m.) diameter.
GU2216	$\frac{3}{8}$″ (9.6 m.m.) diameter.	**GU2221**	$1\frac{1}{4}$″ (32.0 m.m.) diameter.
GU2217	$\frac{1}{2}$″ (12.8 m.m.) diameter.		

Woven grafts can be implanted without preclotting, cut and sutured at any desired point with minimal fraying, but care must be taken in handling the cut edges and sutures placed at least 1 *m.m. from edge.*

Seamless Knitted Teflon Arterial Graft. 20 inches long.

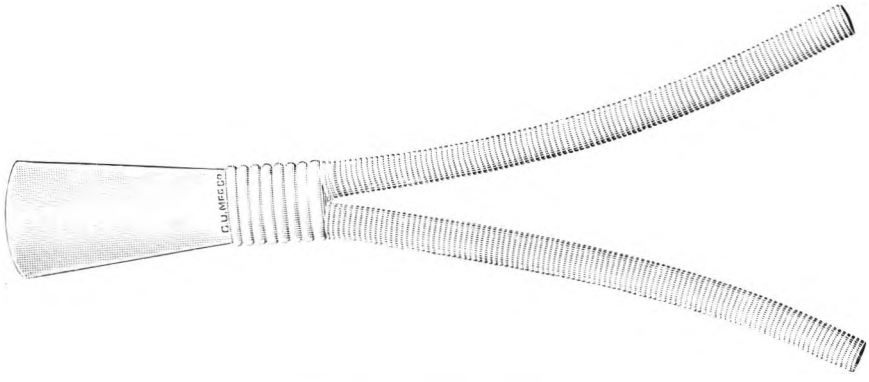
GU2221a	$\frac{3}{16}$″ (4.8 m.m.) diameter.	**GU2225**	$\frac{1}{2}$″ (12.8 m.m.) diameter.
GU2222	$\frac{1}{4}$″ (6.4 m.m.) diameter.	**GU2226**	$\frac{5}{8}$″ (16.0 m.m.) diameter.
GU2223	$\frac{5}{16}$″ (8.0 m.m.) diameter.	**GU2227**	$\frac{3}{4}$″ (19.2 m.m.) diameter.
GU2224	$\frac{3}{8}$″ (9.6 m.m.) diameter.	**GU2228**	$1\frac{1}{8}$″ (28.6 m.m.) diameter.

Knitted grafts. External preclotting is recommended. The tubular knit construction will not fray at cut edges, they may be cut on the bias for making branch grafts and can be sutured close to cut edges. Heat sealing is unnecessary.



Seamless Bifurcated Graft of Teflon

		Aorta		Limbs	
Fig. No.	Construction	Lumen	Length	Lumen	Length
GU2229	Woven	$\frac{11}{16}$″	3″	$\frac{11}{32}$″	$6\frac{1}{2}$″
GU2230	Woven	$\frac{13}{16}$″	3″	$\frac{13}{32}$″	$6\frac{1}{2}$″
GU2231	Woven	1″	3″	$\frac{1}{2}$″	$6\frac{1}{2}$″
GU2232	Knitted	$\frac{11}{16}$″	3″	$\frac{11}{32}$″	$6\frac{1}{2}$″
GU2233	Knitted	$\frac{13}{16}$″	3″	$\frac{13}{32}$″	$6\frac{1}{2}$″
GU2234	Knitted	1″	3″	$\frac{1}{2}$″	$6\frac{1}{2}$″
GU2235	Knitted	$1\frac{1}{4}$″	3″	$\frac{5}{8}$″	$6\frac{1}{2}$″



GU2236 Seamless Knitted Bifurcated Graft of Teflon, with funnel end, Aorta lumen tapers $1\frac{3}{16}''$ to $\frac{11}{16}''$ diameter, aorta length 3″, limbs $\frac{11}{32}''$, lumen length $6\frac{1}{2}''$.

DeBakey™ PROSTHESES OF DACRON*

These seamless arterial grafts and aortic bifurcations are made to the precise specifications of Michael E. DeBakey, M.D., and members of the Department of Surgery, Baylor University, working in co-operation with the U.S. Catheter and Instrument Corp., manufacturers of the grafts.

DeBakey Grafts of Dacron have been implanted by the Baylor group of surgeons in more than 2,500 cases, with highly gratifying results. Other surgeons, too, report continued success in implanting DeBakey Dacron grafts.

The grafts are made of DuPont high tenacity Dacron fibre, specially processed for use in surgical implants. Dacron grafts have been thoroughly tested in both laboratory and clinic, and have demonstrated the qualities required by the surgeon; tensile and flexural strength, retention of strength with age, resistance to acids and solvents; compatibility with the host vessels when implanted. The grafts may be clamped without harm to the fabric, can be cut at any angle and tailored for anastomosis of branches; all types of vascular replacements of the aorta and its major branches. They are easy to handle and easy to suture. The Knitted type is highly resistant to fraying on the cut edges. In the Woven type, greater care must be observed in handling cut edges, and each suture placed well back from the cut edge.

STERILIZATION: Autoclaving and re-autoclaving for 20 minute periods, at 15 lbs., 250° F., is not known to harm the grafts. High speed (3-5 minutes) and high temperature autoclaving is not harmful for the first or second time. Greater frequency is probably not damaging, but has not been fully assessed with years of implantation.

SELECTION OF FABRIC: Seamless KNITTED grafts are most widely used, as the more open weave allows the blood to permeate the interstices of the fabric, permits subsequent ingrowth of fibrous tissue to produce firm attachment of the new intima lining on the inner surface. Seamless WOVEN grafts are relatively non-porous, and their use is indicated in certain conditions where the clotting mechanism has been temporarily altered by heparinization.

** Dupont Trademark for its Polyester Fibre*

DeBakey™ Seamless ARTERIAL GRAFTS OF DACRON

These grafts are made in tubes 39″ long, uniformly crimped to 20″ finished length. This allows for elongation from 20″ up to 30″, as the surgeon may prescribe.

Seamless Woven Dacron Grafts

GU2237	5 m.m. inside diameter	**GU2244**	18 m.m. inside diameter
GU2238	6 m.m. ,, ,,	**GU2245**	20 m.m. ,, ,,
GU2239	8 m.m. ,, ,,	**GU2246**	22 m.m. ,, ,,
GU2240	10 m.m. ,, ,,	**GU2247**	25 m.m. ,, ,,
GU2241	12 m.m. ,, ,,	**GU2248**	30 m.m. ,, ,,
GU2242	14 m.m. ,, ,,	**GU2249**	35 m.m. ,, ,,
GU2243	16 m.m. ,, ,,		

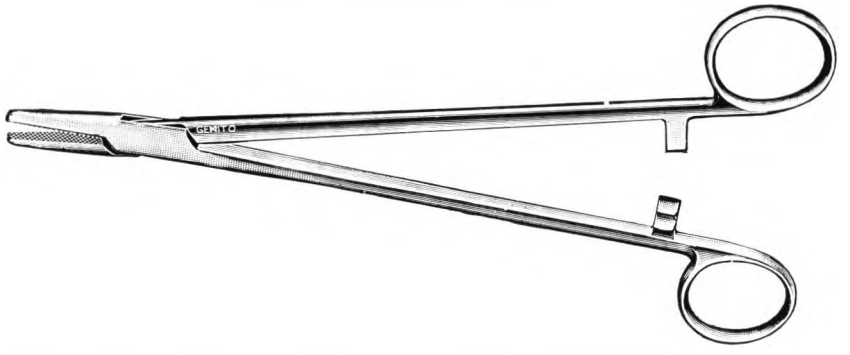
Seamless Knitted Dacron Grafts

GU2250	5 m.m. inside diameter	**GU2254**	12 m.m. inside diameter
GU2251	6 m.m. ,, ,,	**GU2255**	16 m.m. ,, ,,
GU2252	8 m.m. ,, ,,	**GU2256**	19 m.m. ,, ,,
GU2253	10 m.m. ,, ,,	**GU2257**	25 m.m. ,, ,,

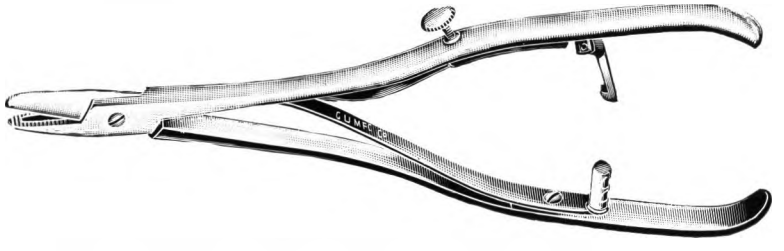
Seamless Bifurcated Graft of Dacron

		Aorta		Limbs	
Fig. No.	Construction	Lumen	Length	Lumen	Length
GU2258	Woven	13 m.m.	3″	6.5 m.m.	6½″
GU2259	Woven	16 m.m.	3″	8.0 m.m.	6½″
GU2260	Woven	19 m.m.	3″	9.5 m.m.	6½″
GU2261	Woven	22 m.m.	3″	11.0 m.m.	6½″
GU2262	Woven	25 m.m	3″	12.5 m.m.	6½″
GU2263	Knitted	13 m.m.	3″	6.5 m.m.	6½″
GU2264	Knitted	16 m.m.	3″	8.0 m.m.	6½″
GU2265	Knitted	19 m.m.	3″	9.5 m.m.	6½″
GU2266	Knitted	22 m.m.	3″	11.0 m.m	6½″
GU2267	Knitted	25 m.m.	3″	12.5 m.m.	6½″

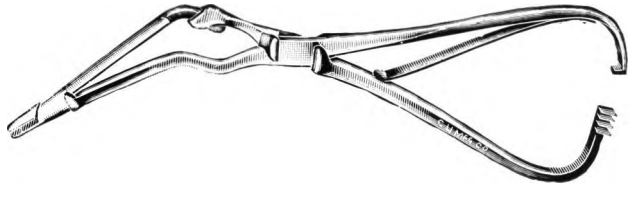
GU2268 Femoral by-pass Tunneler, Taylor's. 16″ long.
GU2269 Ditto, 19″ long.



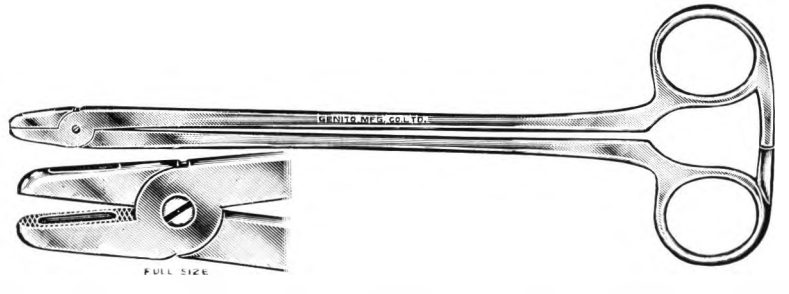
GU2270 Needle Holder, Price Thomas', 8″ long, with diamond hard grooved jaws, stainless steel.
GU2271 Ditto, 10″ long.



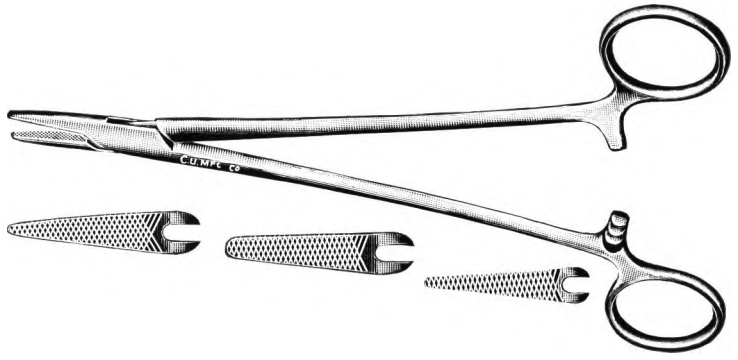
GU2272 Needle Holder, Mayo's, 7″ long, stainless steel.
GU2273 Ditto, 9″ long.



GU2274 Needle Holder, Halstead's, 8½″ long, stainless steel.



GU2275 Needle Holder, Tudor Edwards', 9″ long for suturing the stump in lobectomy, stainless steel.



GU2276 Needle Holder, Mayo-Hegar's, stainless steel $5\frac{1}{2}''$ long, normal jaws, DIAMOND HARD.

GU2277 Ditto, 6″ long.

GU2278 Ditto, 7″ long.

GU2279 Ditto, 8″ long.

GU2280 Ditto, 10″ long.

GU2281 Needle Holder, Mayo-Hegar's, stainless steel, 8″ long, narrow jaws, DIAMOND HARD.

GU2282 Ditto, 10″ long.

GU2283 Needle Holder, Mayo-Hegar's, stainless steel, 8″ long, extra narrow, jaws, DIAMOND HARD.

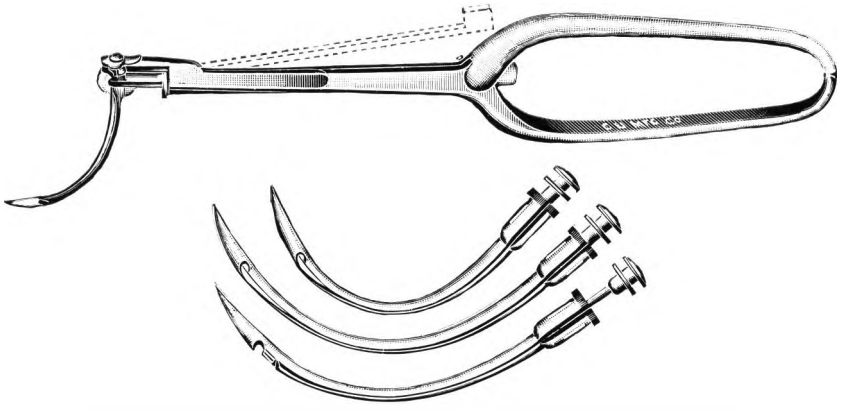
GU2284 Ditto, 10″ long.

GU2285 Needle Holder, Mathieu, $6\frac{3}{4}''$ long, DIAMOND HARD jaws, stainless steel.

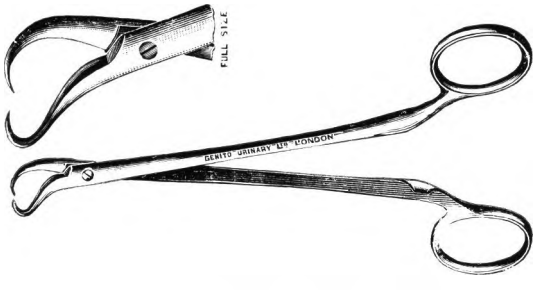
GU2286 Ditto, 8″ long.

GU2287 Ditto, 10″ long.

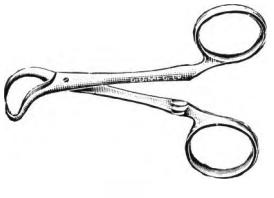
To ensure correct fulfilment of orders, reference to Catalogue Numbers will be appreciated.



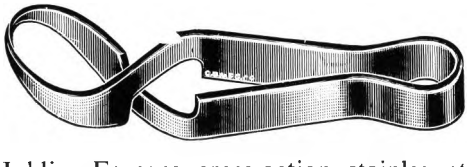
GU2288 Needle Holder, Bonney's, stainless steel, with long lever, complete with one blunt and three sharp stainless steel needles.
GU2289 Extra Needle, fully curved, stainless steel.
GU2290 Extra Needle, half curved, stainless steel.
GU2291 Extra Needle, slight curve, stainless steel.
GU2292 Extra Needle, fully curved, blunt, stainless steel.



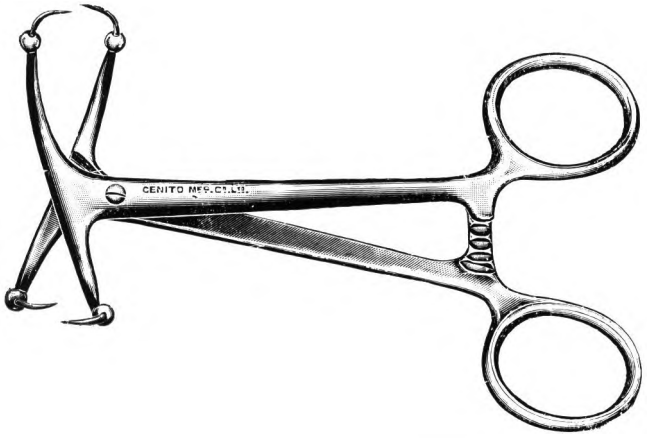
GU2293 Towel Holding Forceps, Moynihan's, single tooth, 6″ long, stainless steel.



GU2294 Towel Holding Forceps, Backhaus, 4″ long, stainless steel.

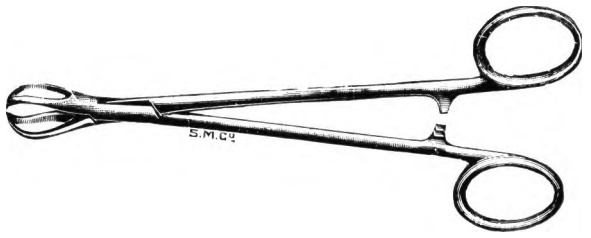


GU2295 Towel Holding Forceps, cross action, stainless steel.

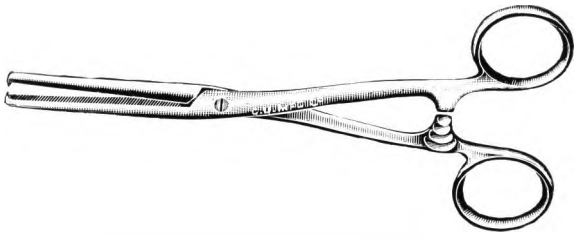


GU2296 Towel Holding Forceps, Isom's, stainless steel.

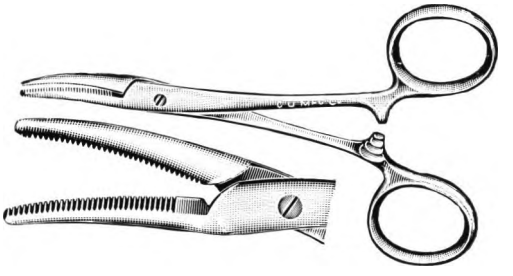
GU2297 Towel Holding Forceps, Tudor Edwards', $5\frac{1}{2}$″ long, with oblique joint, stainless steel.



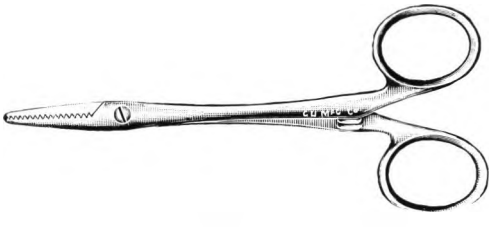
GU2298 Tissue Forceps, Lane's, $7\frac{3}{4}$″ long, box joint, stainless steel.
GU2299 Tissue Forceps, Lane's, 5″ long, screw joint, stainless steel.



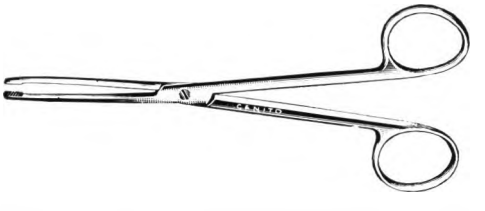
GU2300 Artery Forceps, Kocher's, 5″ long, stainless steel.
GU2301 Ditto, 6″ long.
GU2302 Ditto, 7″ long.



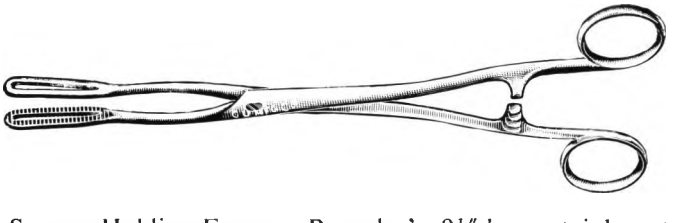
GU2303 Artery Forceps, Dunhill's 5½″ long, screw joint, curved on flat, stainless steel.
GU2304 Ditto, 7″ long.



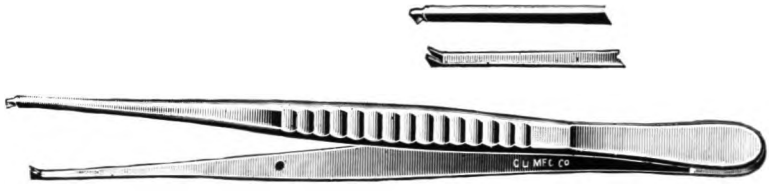
GU2305 Artery Forceps, Spencer Wells', screw joint, 5″ long, stainless steel.
GU2306 Ditto, 6″ long.
GU2307 Ditto, 7″ long.
GU2308 Ditto, 8″ long.
GU2309 Ditto, 9″ long.



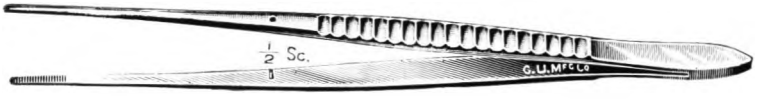
GU2310 Sinus Forceps, Lister's, screw joint. 5″ long, stainless steel.
GU2311 Ditto, 6″ long.
GU2312 Ditto, 7″ long.
GU2313 Ditto, 8″ long.



GU2314 Sponge Holding Forceps, Rampley's, 9½″ long, stainless steel.

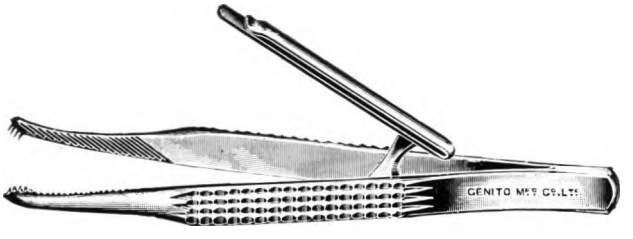


GU2315 Dissecting Forceps, Waugh's, 1 in 2 teeth, 8″ long, stainless steel.

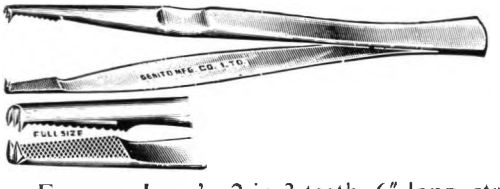


GU2316 Dissecting Forceps, Waugh's, plain, 8″ long, stainless steel.

GU2317 Dissecting Forceps, 5″ long, stainless steel.
GU2318 Ditto, 6″ long.
GU2319 Ditto, 8″ long.



GU2320 Forceps for approximating wound edges, Brock's, with gallery for sutures, stainless steel.
GU2321 Forceps for insertion of Michel's clips.
GU2322 Forceps for removing Michel's clips, stainless steel.
GU2323 Michel's clips.



GU2324 Dissecting Forceps, Lane's, 2 in 3 teeth, 6″ long, stainless steel.
GU2325 Ditto, 7″.
GU2326 Ditto, 8″.

GU2327 Dissecting Forceps, Bonney's, 1 in 2 teeth, 7″ long, stainless steel.

GU2328 Dissecting Scissors, Mayo's, curved, 5½″ long, stainless steel.
GU2329 Ditto, 6″ long.
GU2330 Ditto, 6½″ long.
GU2331 Ditto, 7″ long.
GU2332 Ditto, 7½″ long.
GU2333 Ditto, 8″ long.

GU2334 Ditto, straight, 5½″ long.
GU2335 Ditto, 6″ long.
GU2336 Ditto, 6½″ long.
GU2337 Ditto, 7″ long.
GU2338 Ditto, 7½″ long.
GU2339 Ditto, 8″ long.

GU2340 Dressing Scissors, straight, 5″ long, stainless steel.
GU2341 Ditto, 6″ long.

GU2342 Stitch Scissors, straight, 5″ long, stainless steel.
GU2343 Ditto, 6″ long.

GU2344 Scissors, with one sharp point and one blunt, 5″ long, stainless steel.
GU2345 Ditto, 6″ long.

GU2346 Probe Dissector, Watson-Cheyne's, 5″ long, stainless steel.
GU2347 Ditto, 7″ long.

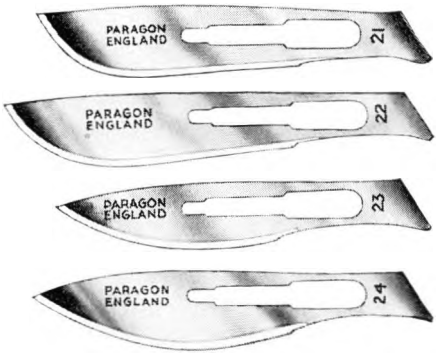
GU2348 Scoop, Volkmann's, small, stainless steel.
GU2349 Ditto, medium.
GU2350 Ditto, large.

GU2351 Retractor, Czerny's, double, stainless steel.

GU2352 Retractor, Langenbeck's, $\frac{7}{8}'' \times \frac{1}{4}''$, stainless steel.
GU2353 Ditto, $1\frac{3}{4}'' \times \frac{1}{2}''$.

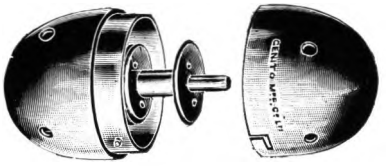
PARAGON SCALPELS

GU2354 Handle No. 3.
GU2355 Ditto, No. 4.
GU2356 Ditto, No. 7.
GU2357 Ditto, No. 2, $8\frac{1}{4}''$ long.



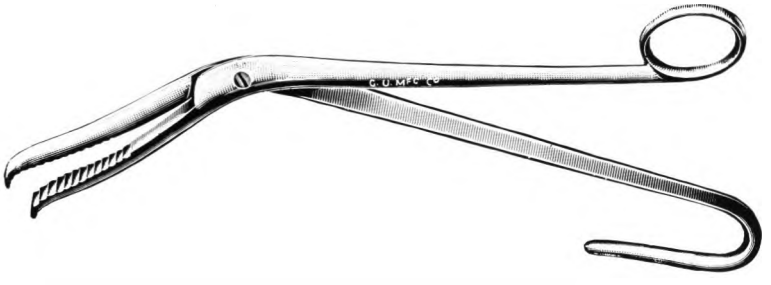
GU2358 Blades No. 10
GU2359 ,, No. 11.
GU2360 ,, No. 15.
GU2361 ,, No. 20.

GU2362 Blades No. 21.
GU2363 ,, No. 22.
GU2364 ,, No. 23.
GU2365 ,, No. 24.

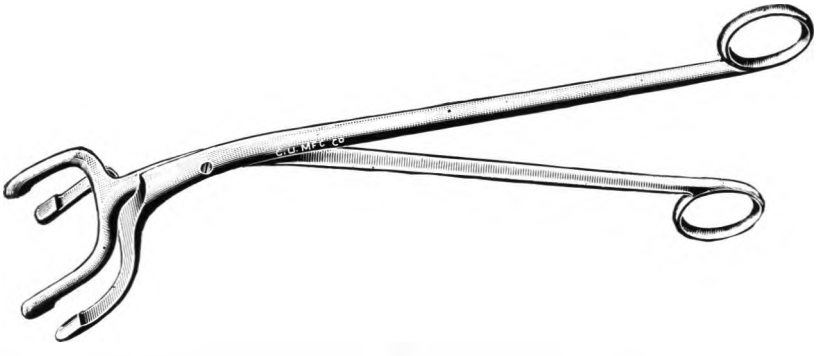


GU2366 Ligature Egg, nickel plated.

GU2367 Sterilizing Forceps, Cheatle's, stainless steel.



GU2368 Sterilizing Forceps, heavy pattern, stainless steel.



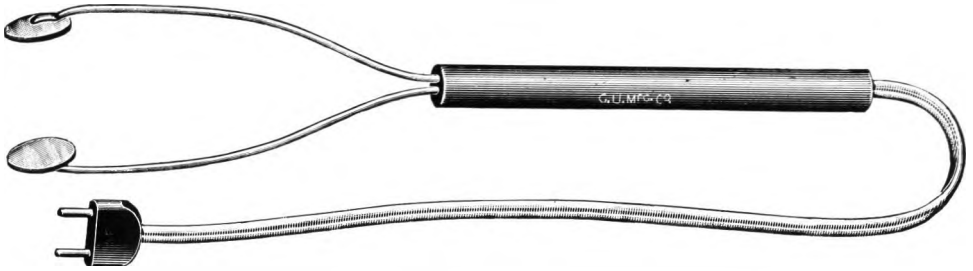
GU2369 Bowl Forceps, Harrison's, 9½″ long, stainless steel.
GU2370 Ditto, 14″ long.

GU2371 Cardiac Pacemaker, I.M.E. model, as used at Queen Elizabeth Hospital, Birmingham, and Hammersmith Hospital, London.

Specification: Fully transistorized, adjustable voltage from 0 to 9 volts, pulse rate continuously variable from 50 to 150 per minute, pulse width 6 milli-seconds, crystal microphone insert giving audible indication of pulse rate. Batteries can be replaced without stopping pacemaker, size 6″ × 3″ × 3″.
Complete with lead and two insulated sutures.

GU2372 Extra Batteries, Every Ready "PP4". (*Not illustrated*).

GU2373 Pacemaker Sutures, Nylon covered braided stainless steel wire, mounted on atraumatic needle. (*Not illustrated*).



GU2374 Applicators, for use with pacemaker, Queen Elizabeth Hospital model, complete with cables.

GU2375 Cardiac Defibrillator, Hammersmith Hospital pattern, shock range 100, 150, 200, 250 and 300 volts, press button operated, with mains and output indicator lamps, duration of shock limited to $\frac{1}{5}$ or $\frac{1}{10}$ of a second, in gastight white enamelled steel case.

Size 11″ × 7½″ × 10½″.
Weight 31 lbs.

Please state voltage and frequency when ordering.

GU2376 Cardiac Defibrillator Electrodes with cable, adult size, can be sterilized by boiling or autoclaving. *Not illustrated.*

GU2377 Ditto, child size. *Not illustrated.*

GU2378 Cardiac Defibrillator, Lightwood model, in gastight white enamelled cabinet (as used at Queen Elizabeth Hospital, Birmingham).
Specification:

D.C. Pulse	Fully isolated from "charge circuit" and mains at the time of application, pulse being supplied from reservoir condenser.
Pulse duration	Variable in six steps from 10 to 180 milli-seconds.
Pulse voltage	Variable in six steps from 100 to 400 volts D.C.
A.C. Pulse	Fixed at 240 volts A.C. 200 milli-seconds.
Indication	Output shown by Neon indicator, charge recovery of reservoir condenser shown by meter.
Control	Push button on panel for output, socket for remote control with footswitch.
Size	12″ × 14″ × 10″.
Weight	27 lbs. (12.247 Kilos).

Please state voltage and frequency when ordering.

GU2379 Footswitch for use with above. *Not illustrated.*

Electrodes for use with above, see Catalogue numbers **GU2376/7**

GU2380 Brompton Electro-Surgical Instrument Table (Original spark gap model).

This unit supplies electrical energy suitable for Electro-Surgical Operations, namely coagulation and cutting high frequency current, low tension current for Galvano cautery and low tension current for Endoscopic Instruments.

Specification:

Diathermy: spark gap oscillator, controlled by gastight footswitch.

Cautery Circuit: Variable voltage, 30 amperes maximum.

Lighting Circuits: 4, 8 and 10 volts.

Pump Unit: Oil immersed rotary high vacuum pump with displacement of approximately 30 litres per minute, and a vacuum of 28-29 inches Hg. Single 80 oz. collecting bottle with overflow valve.

Weight: 394 lbs. (177.8 Kgs.).

Overall Dimensions: 31½″ long, 22″ wide and 38½″ high.

The apparatus complies with all Ministry of Health safety recommendations.

Please state voltage and frequency of supply when ordering (A.C. only).

GU2381 Brompton Electro-Surgical Instrument Table (Original spark gap model) with addition of twin bottle suction unit.

This model is similar to catalogue number **GU2380** but has the new G.U. twin bottle suction head. This enables the second bottle to be used once the first has been filled by merely moving the changeover knob. Whilst the second bottle is being filled the first can be removed and emptied thereby ensuring the continuous working of the apparatus.

The apparatus complies with all Ministry of Health safety recommendations.

Please state voltage and frequency of supply when ordering (A.C. only).

GU2382 G.U. Diathermy Apparatus, type "EDG" in gasproof metal cabinet with stainless steel top. Complete with footswitch, lead electrode and 2 cables.

The characteristics of the high frequency generator in this apparatus is exactly similar to that fitted in our well-known model "ED".

The components are assembled in a gastight metal cabinet with stainless steel top and is mounted on 4″ ball bearing anti-static castors. Both the mains and footswitch cables are led directly into the cabinet and can be housed in the compartment provided.

The apparatus complies with all Ministry of Health safety recommendations.

Please state voltage and frequency of supply when ordering. (A.C. only).

GU2383 G.U. Diathermy Apparatus type "EDUP" in gasproof metal cabinet with stainless steel top. 1 Galvano cautery and 2 light transformers. Complete with two footswitches (1 diathermy the other cautery), lead electrode and 2 cables.

Model "EDUP" is similar to catalogue number **GU2382** with the addition of 2 low tension circuits for lighting endoscopic instruments and a Galvano cautery circuit.

The apparatus complies with all Ministry of Health safety recommendations.

GU2384 G.U. Diathermy Apparatus type "EDL" in gasproof metal cabinet, with 2 low voltage lighting circuits. Complete with footswitch, lead plate electrode and 2 cables.

The high frequency generator in this apparatus is similar to that fitted in model "EDG", with the addition of 2 low tension circuits for lighting endoscopic instruments. The current for these is provided by an earthfree transformer, the independent secondary windings of which are led to terminals on the front panel of the cabinet with the control rheostats directly below them. The transformer can be cut off the mains supply by a double pole switch. Both mains and footswitch cables are led directly into the cabinet. The external lengths of cable can be rolled up and housed together with the electrodes etc., on the two shelves provided in the lower half of the apparatus. The welded steel cabinet, finished in off white enamel, is mounted on four anti-static ball bearing castors.

The above apparatus meets all Ministry of Health safety regulations.
Measurements: 27″ long, 18″ wide, 36″ high.

Measurements:
24″ × 13″ × 15″ high.
Weight:
82 lbs. (37.2 Kgs.).

GU2385 Rotary Vacuum Pump, London Hospital model, with single phase alternating current motor.

The rotary oil immersed pump containing 20 ozs., vacuum oil is driven by a $\frac{1}{8}$ h.p. motor at 480 r.p.m. and produces a vacuum of approximately 28″ of mercury.

The pump and motor are mounted on 4 silent blocks within a welded steel cabinet. This arrangement reduces noise to a minimum. A collapsible handle and 4 anti-static ball bearing castors are fitted for ease of mobility.

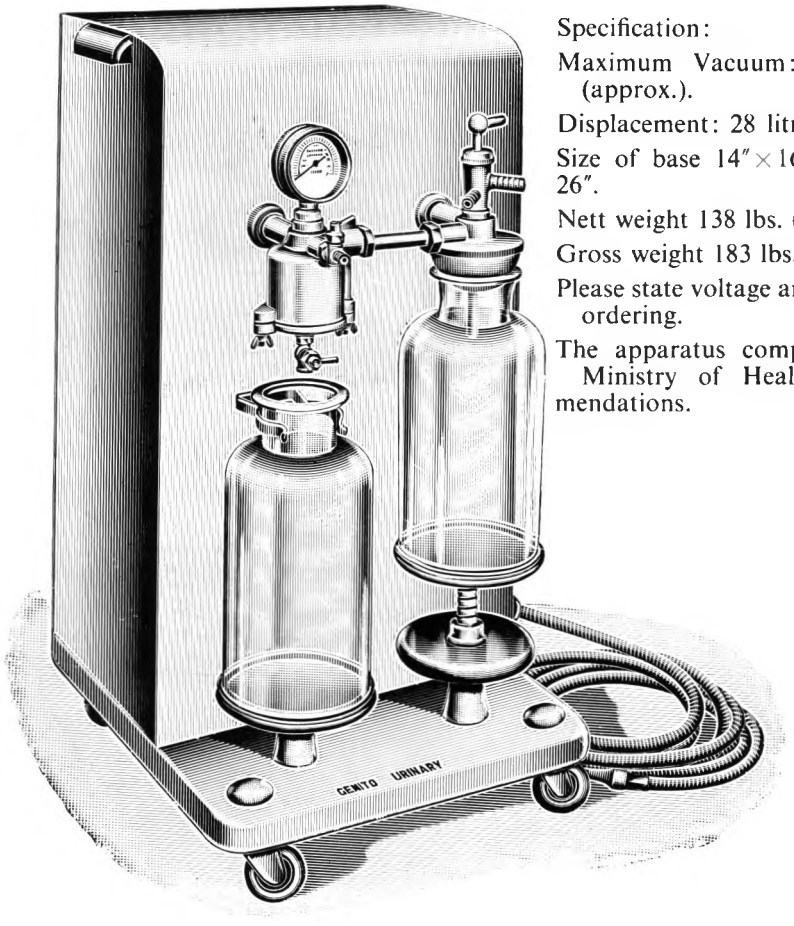
A completely new type overflow valve in the form of a sliding sleeve with lint filter is fitted on the bottle cap. This new arrangement is more sensitive than the conventional float method of overflow valve.

The apparatus complies with all Ministry of Health safety recommendations.

Please state voltage and frequency of supply when ordering.

GU2386 Extra Lint Filters, Packet.

GU2387 Extra Bottles, wide mouth.



Specification:

Maximum Vacuum: 29″ of mercury (approx.).

Displacement: 28 litres per minute.

Size of base 14″×16″, overall height: 26″.

Nett weight 138 lbs. (72.6 Kgs.).

Gross weight 183 lbs. (83.0 Kgs.).

Please state voltage and frequency when ordering.

The apparatus complies with all Ministry of Health safety recommendations.

GU2388 Rotary High Vacuum Pump with single phase alternating current motor.

The oil immersed pump has a displacement at atmospheric pressure of 28 litres per minute. It is driven by a ¼ h.p. totally enclosed motor with V belt. Pump and motor are mounted on four silent blocks in a welded steel cabinet with four ball bearing anti-static castors. This mode of assembly eliminates vibration and noise. The motor is controlled by a sparkless switch and needs no attention over long periods. The G.U. quick release bottle holder with two way cock and the overflow trap with vacuum gauge are fixed to the front of the cabinet. Two 80 oz. bottles and 6 ft. of vacuum tubing are included with the apparatus.

Specification:

Maximum Vacuum : 29″ of mercury (approx.).

Displacement: 28 litres per minute.

Dimensions: 30″ × 15½″ × 21″.

Nett weight 165 lbs. (75 Kg.).

Gross weight: 201 lbs. (95.2 Kg.).

Please state voltage and frequency when ordering.

The apparatus complies with all Ministry of Health safety recommendations.

GU2389 Rotary High Vacuum Pump with twin bottle vacuum equipment. (Patent No. 30311/55).

This apparatus is similar to our well known rotary high vacuum pump, but is fitted with a twin bottle holder which allows either bottle to be filled by merely changing the position of a lever. In addition the complete bottle unit including the overflow valve can easily be removed and dismantled for cleaning.

A detailed illustrated leaflet will be sent on application.

GU2390 Suction Drainage Apparatus, Roberts', twin piston type.

This apparatus designed for continuous drainage over long periods, consists of a small noiseless pump, a suction bottle with vacuum gauge and adjustable valve. Both pump and bottle are mounted on a cream enamelled hardwood base fitted with a chromium plated carrying handle.

The pump will work on alternating current only, continuously for weeks, and needs no attention beyond an occasional drop of oil in the bearings.

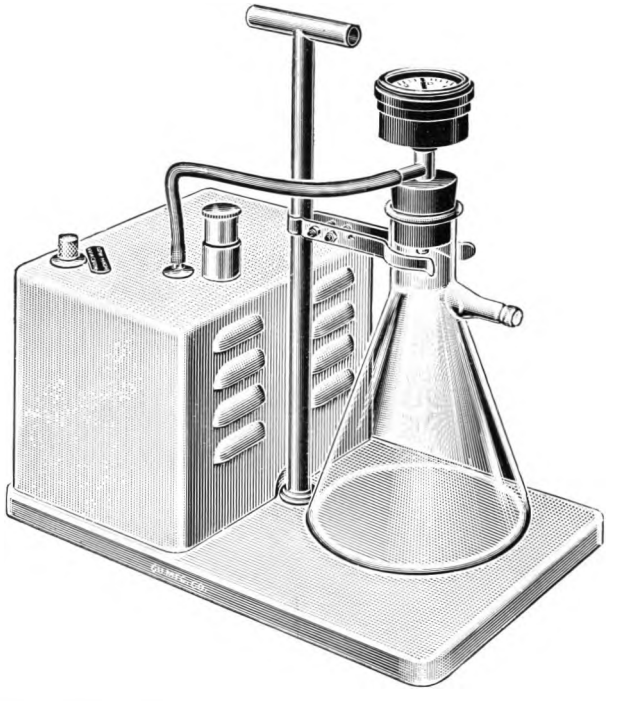
The required vacuum in the bottle can be pre-selected, and maintained at the desired value by means of a sensitive control, safety valve and a precision vacuum gauge graduated in centimetres of mercury from 0 to 20 cms.

Please state voltage and frequency of supply when ordering.

This pump consumes only 32 Watts and can be connected to any lamp socket.

GU2391 Suction Drainage Apparatus, Roberts', twin piston type, as above but fitted with Valve to prevent overflow of bottle into pump.

GU2392 Spare Flask.



GU2393 Suction Drainage Apparatus, Roberts', with oil immersed rotary pump.

This apparatus designed for continuous drainage over long periods, consists of a small noiseless pump, a suction bottle with vacuum gauge and adjustable valve. Both pump and bottle are mounted on a metal base fitted with a chromium plated carrying handle.

The pump will work on alternating current only, continuously for weeks and needs no attention over long periods.

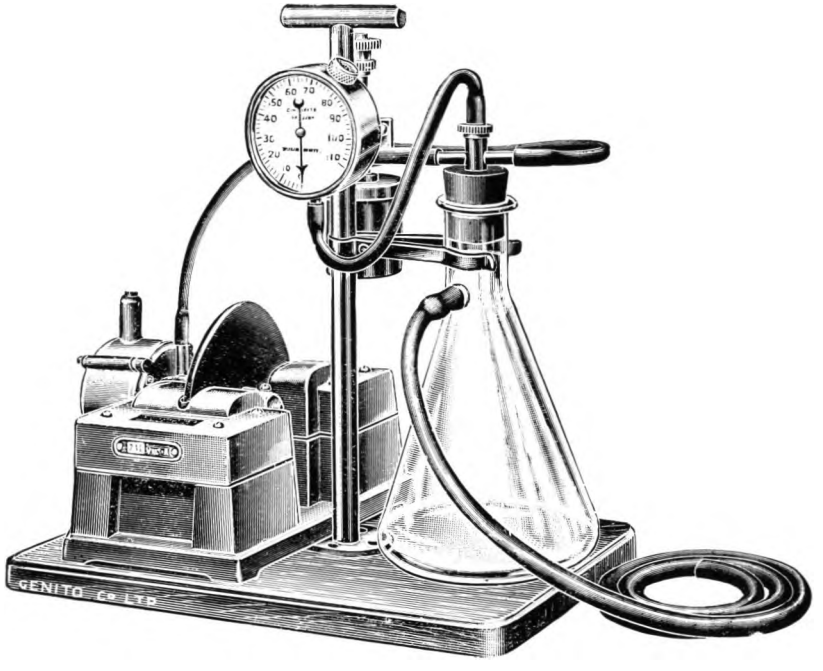
The required vacuum in the bottle can be pre-selected, and maintained at the desired value by means of a sensitive control, safety valve and a precision vacuum gauge graduated in centimetres of mercury from 0 to 20 cms.

Please state voltage and frequency of supply when ordering.

This pump consumes only 32 Watts and can be connected to any lamp socket.

GU2394 Suction Drainage Apparatus, Roberts', as above but fitted with Valve to prevent overflow of bottle into pump.

GU2395 Spare Flask.



GU2396 Suction Drainage Apparatus for the drainage of lung cavities by the Monaldi technique.

The apparatus consists of:

An oil immersed silent pump of adequate capacity, and designed for continuous performance.

A precision Vacuum Gauge with 3″ dial, graduated in cms. of water from 0 to 110 cms.

A sensitive automatic Vacuum Control Valve.

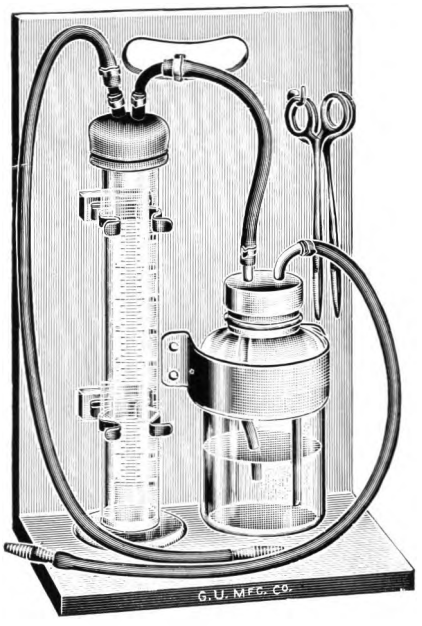
Keynes Flask, 1,000 c.c. with rubber bung and tubing attachment, and 4 ft. of rubber tubing.

The pump is designed to work on alternating current only.

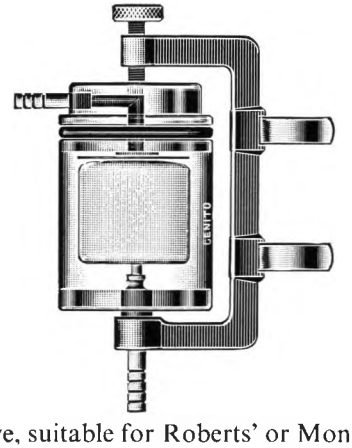
Please state voltage and frequency when ordering.

GU2397 Suction Drainage Apparatus for drainage of lung cavities by the Monaldi technique, as above but fitted with valve to prevent overflow of the bottle into pump.

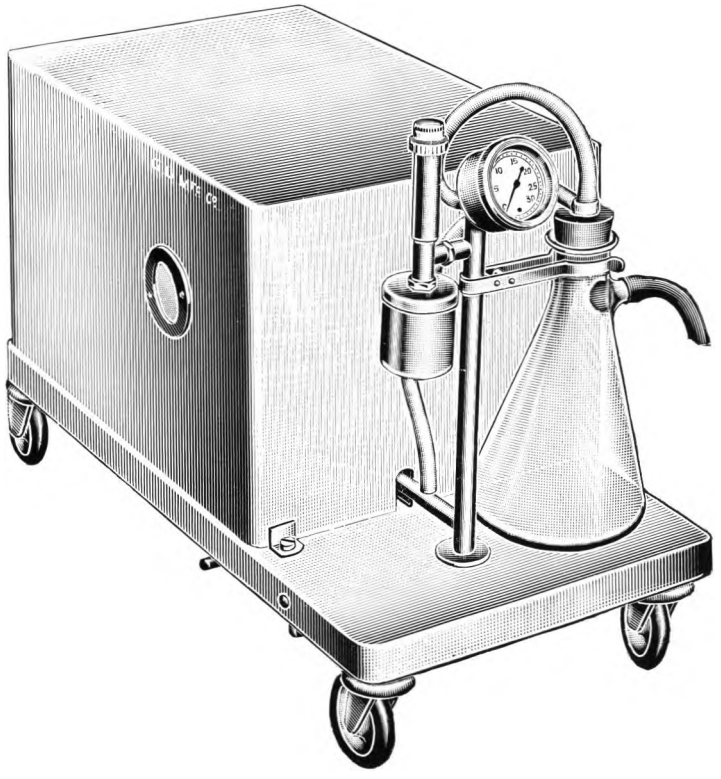
GU2398 Spare Flask.



GU2399 Drainage bottle stand. Hammersmith Hospital pattern, complete with 2 Tubing clamps.
GU2400 Extra 4 lb. Kilner Jar.
GU2401 Extra 500 c.c. graduated cylinder.
GU2402 Extra "Suba Seal" Bung.
GU2403 Extra Metal Connection straight.
GU2404 Extra Metal Connection angled.
GU2405 Extra Plastic Connectors, large.
GU2406 Extra Plastic Connectors, small.
GU2407 Extra Tubing Clamps.



GU2408 Overflow Valve, suitable for Roberts' or Monaldi Suction Apparatus. (This is easily fitted to existing apparatus to prevent overflow of bottle into pump).
GU2409 Spare Float for above.



GU2410 Suction Apparatus, Barretts-Tubbs'.

The apparatus is designed for post operative treatment of chest cases and consists of a rotary oil immersed vacuum pump driven by a totally enclosed $\frac{1}{8}$ h.p. motor with "V" belt. The pump and motor are mounted in a white enamelled steel cabinet on 4 ball bearing anti-static castors. The vacuum control, vacuum gauge and flask are mounted on the front of the cabinet and a collapsible handle (*not illustrated*) is fitted for easy movement.

The apparatus can be run for long periods and the vacuum can be regulated from approximately $\frac{1}{4}$" to 27 inches of mercury and maintained at the desired value by means of the sensitive safety valve. The volume is in the region of 6 to 11 litres of air per minute according to the pressure at which it is set.

A water seal bottle should be used in conjunction with the apparatus into which should be added a few drops of anti-foam solution, such as Caprylic Alcohol (Octyl Alcohol) normal primary.

Please state voltage and frequency when ordering.

GU2411 Spare Flask for above.

GU2412 Low pressure, high volume Suction Apparatus, Vernon Thompson's.

The apparatus is designed for post operative treatment of chest cases and consists of a high volume suction unit directly coupled to an efficient electric motor, the speed of which can be varied to enable pressure and volume to be adjusted to suit individual patients. The pump, motor and control are mounted in a white enamelled steel cabinet on 4 ball bearing anti-static castors. The vacuum gauge and flask are mounted in the front of the cabinet and a collapsible handle (*not illustrated*) is fitted for easy movement.

The apparatus will run for long periods and the vacuum can be regulated from approximately 6 to 40 cms. of water. The volume is in the region of 4 to 56 litres of air per minute according to the speed at which the apparatus is run.

Once the desired negative pressure has been selected, it is not possible for high vacuums to be built up in the chest.

A water seal bottle should be used in conjunction with the apparatus, into which should be added a few drops of anti-foam solution, such as Caprylic alcohol (Octyl Alcohol) normal primary.

Please state voltage and frequency when ordering.

GU2413 Spare Flask for above.

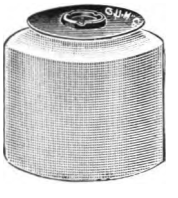
GU2414 80 oz. Bottle with wide neck, marked "Do not fill above this line" for Brompton trolley and rotary high vacuum pumps.

GU2415 Ditto, Graduated in ozs.

GU2416 Ditto, Graduated in c.c.'s.

GU2417

GU2418



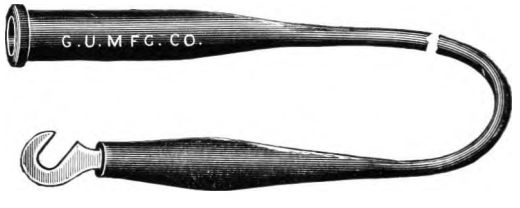
GU2417 Hemispherical Bung, anti-static, for Brompton trolleys or rotary high vacuum pumps.

GU2418 Balsa Wood Float, for modern Brompton trolleys and rotary high vacuum pumps.

GU2419 Metal Float, for older type Brompton trolleys and rotary high vacuum pumps. (Those with a metal float chamber).

GU2420 Rubber Footswitch, for diathermy, totally enclosed, with 12 ft. cable.

GU2421 Rubber Footswitch, for cautery (white centre for identification) totally enclosed, with 12 ft. cable.



GU2422 Flexible All Rubber Boilable Cable, for needles and coagulation electrodes, 6 ft. long.

GU2423 Ditto, 9 ft. long.

GU2424 Flexible Plastic Boilable Cable, with Bakelite mounts, for needles and coagulation electrodes, 6 ft. long.

GU2425 Ditto, 9 ft. long.

GU2426 Flexible Rubber Boilable Cable, with Bakelite mount for indifferent lead electrode. HOOK FITTING, 6 ft. long.

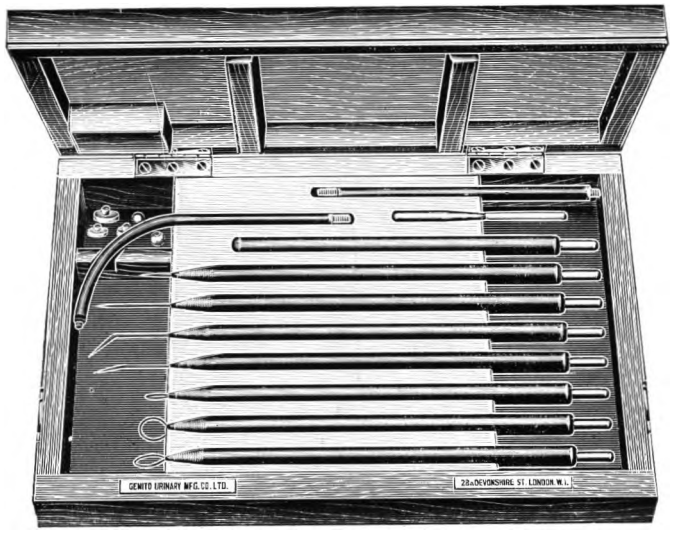
GU2427 Ditto, 9 ft. long.

GU2428 Flexible Rubber Boilable Cable, with Bakelite mount for indifferent electrode. NON-INTERCHANGEABLE SCREW FITTING, 6 ft. long.

GU2429 Ditto, 9 ft. long.

GU2430 Indifferent Lead Electrode, size 8″×6″, with reinforced terminal.

GU2431 Ditto, child size, 6″×4″.



GU2432 Standard Set of Cutting and Coagulation Electrodes, consisting of: 1 each stout and fine straight cutting needles, 1 each stout and fine angled cutting needles, 3 tungsten loops, 10, 12 and 14 m.m. diameter, coagulation electrode comprising boilable insulated handle, straight and curved electrode carriers, 3 plate and 2 ball silver electrodes, blade electrode. Complete in polished mahogany case.

GU2433 Minor Set of Cutting and Coagulation Electrodes, consisting of: 2 cutting needles, 1 tungsten loop, each of these mounted on boilable insulated handles, 1 Coagulation electrode comprising boilable insulated handle, straight and curved electrode carriers, 3 plate and 2 ball silver electrodes, blade electrode. Complete in polished mahogany case.

GU2434 Diathermy Needle Handle only, Boilable, for screw-in type needles and loops.

GU2435 Diathermy Needle, Tungsten, straight, short, fine (needle length $\frac{5}{8}$″).
GU2436 Ditto, medium.
GU2437 Ditto, stout.

GU2438 Diathermy Needle, Tungsten, straight, long, fine (needle length $1\frac{3}{8}$″).
GU2439 Ditto, medium.
GU2440 Ditto, stout.

GU2441 Diathermy Needle, Tungsten, angled, fine.
GU2442 Ditto, medium.
GU2443 Ditto, stout.

GU2444 Diathermy Loop, Tungsten, fine, 8 m.m. diameter.
GU2445 Ditto, 10 m.m. diameter.
GU2446 Ditto, 12 m.m. diameter.
GU2447 Ditto, 14 m.m., diameter.

GU2448 Diathermy Loop, Tungsten, stout, 8 m.m. diameter.
GU2449 Ditto, 10 m.m. diameter.
GU2450 Ditto, 12 m.m. diameter.
GU2451 Ditto, 14 m.m. diameter.

GU2452 Diathermy Needle, Tungsten. long, stout, blunt.

GU2453 Acorn Diathermy Handle, Boilable, for drop-in type fine needle for skin cutting.

GU2454 Needle for use with above handle.

GU2455 Diathermy Handle, Boilable, to hold straight and curved electrode carriers and also blade electrode.

GU2456 Curved Electrode Carrier, for ball or plate electrodes.

GU2457 Straight Electrode Carrier, for ball or plate electrodes.

GU2458 Ball Electrode, Silver, size 6 m.m. diameter to screw on to straight or curved electrode carriers.

GU2459 Ditto, 8 m.m. diameter.

GU2460 Plate Electrode, Silver, size 8 m.m. diameter to screw on to straight or curved electrode carriers.

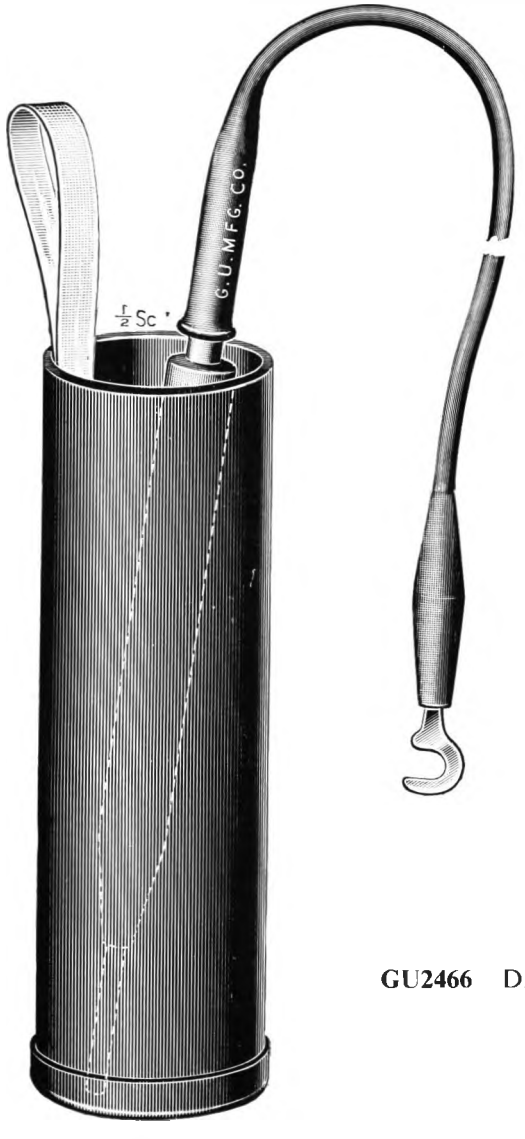
GU2461 Ditto, 10 m.m. diameter.

GU2462 Ditto, 12 m.m. diameter.

GU2463 Diathermy Blade Electrode, to screw on to boilable insulated handle, Catalogue Number **GU0000**

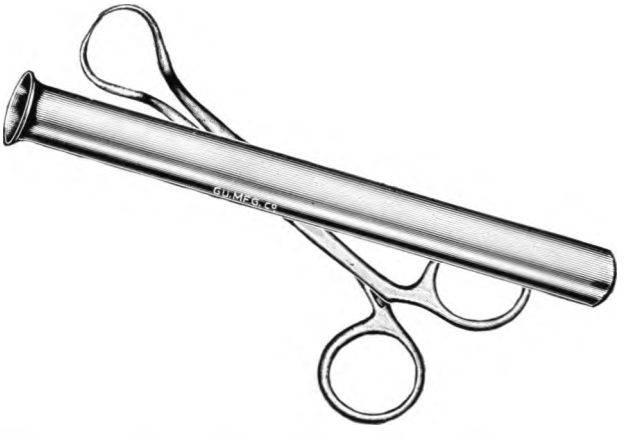
GU2464 Combined Needle and Blunt Dissector, mounted on boilable insulated handle.

GU2465 Haemostatic Electrode, Roberts', boilable, with $\frac{3}{16}$" diameter blunt needle $1\frac{1}{2}$" long.



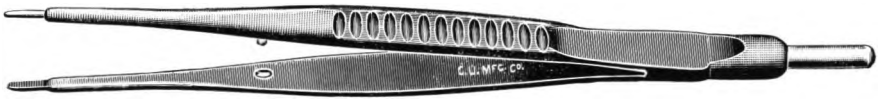
GU2466 Diathermy Needle Quiver, Rubber, 2½″ diameter, 8″ long, with tape.

GU2467 India Rubber Diathermy Needle Rest, with Bakelite holder. This apparatus serves the purpose of holding diathermy needles and coagulation electrodes across the patient's body.

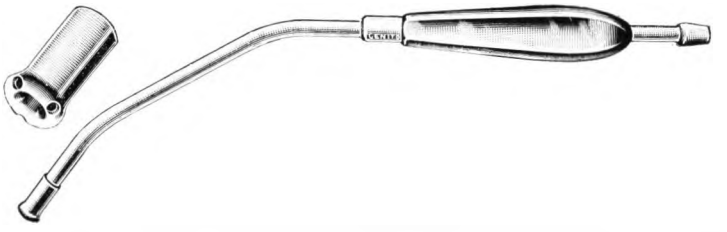


GU2468 Diathermy Needle Quiver, Wingfield's, stainless steel.

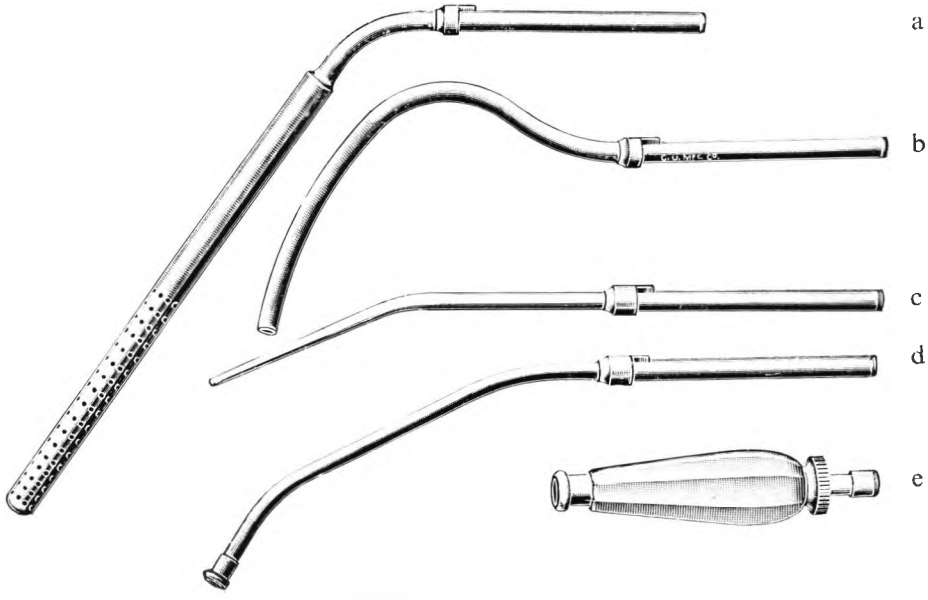
GU2469 Diathermy Forceps, Riches', insulated to within ¼" of tips, 6" long.
GU2470 Ditto, 7" long.
GU2471 Ditto, 8" long.
GU2472 Ditto, 9" long.



GU2473 Insulated Dissecting Forceps, 6" long.
GU2474 Ditto, 8" long.



GU2475 Suction Tube, Yankauer's, with fixed handle, chromium plated.



GU2476 Set of Suction Tubes, Improved G.U. model, interchangeable on chromium plated handle, consisting of: (*a*) suction tube for aspiration of peritoneal cavity, with safety air inlet to prevent aspiration and injury to omentum or gut; (*b*) Harris tube; (*c*) fine nasal suction tube; (*d*) Yankauer's suction tube; (*e*) Handle with adjustable compression washer.

This set of suction tubes comprises four of the most useful patterns which can be fitted quickly to the handle. They are held in position in the handle by a friction washer, which always ensures a perfectly airtight joint.

GU2477 Suction Tube, Brompton Hospital pattern, with fixed handle, chromium plated.

GU2478 Vacuum Tubing, "Anti-Static", large bore.
GU2479 Vacuum Tubing, "Anti-Static", small bore.

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